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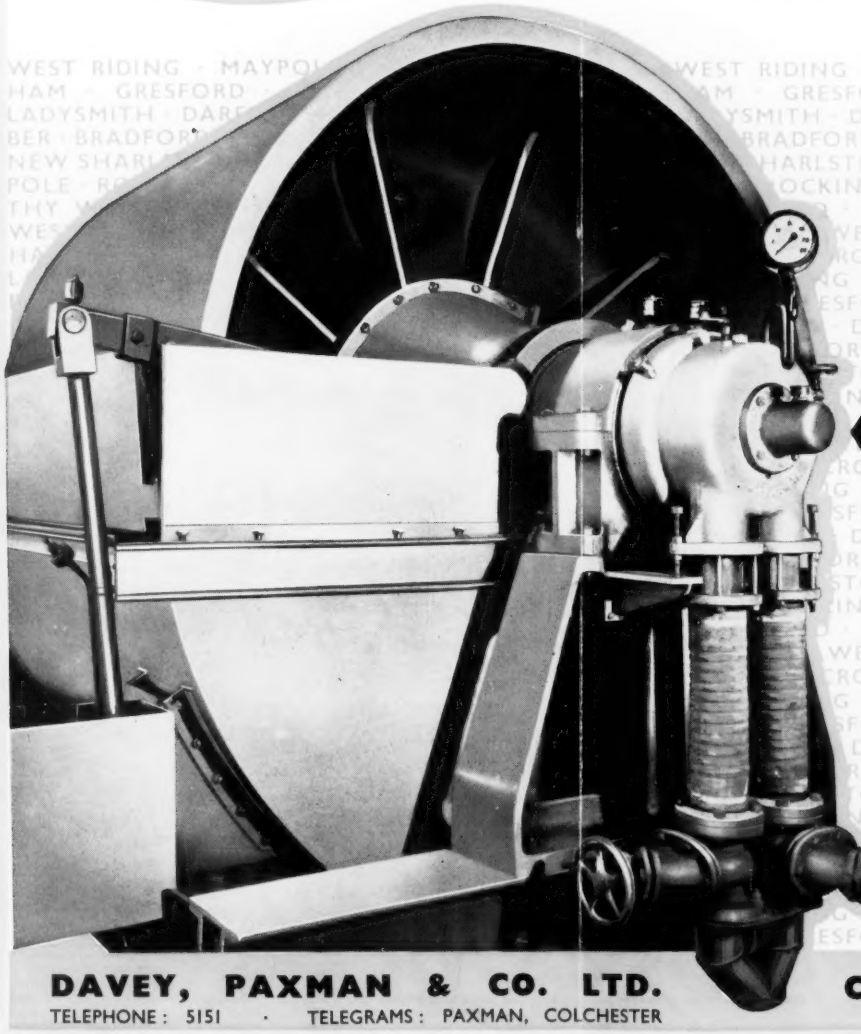

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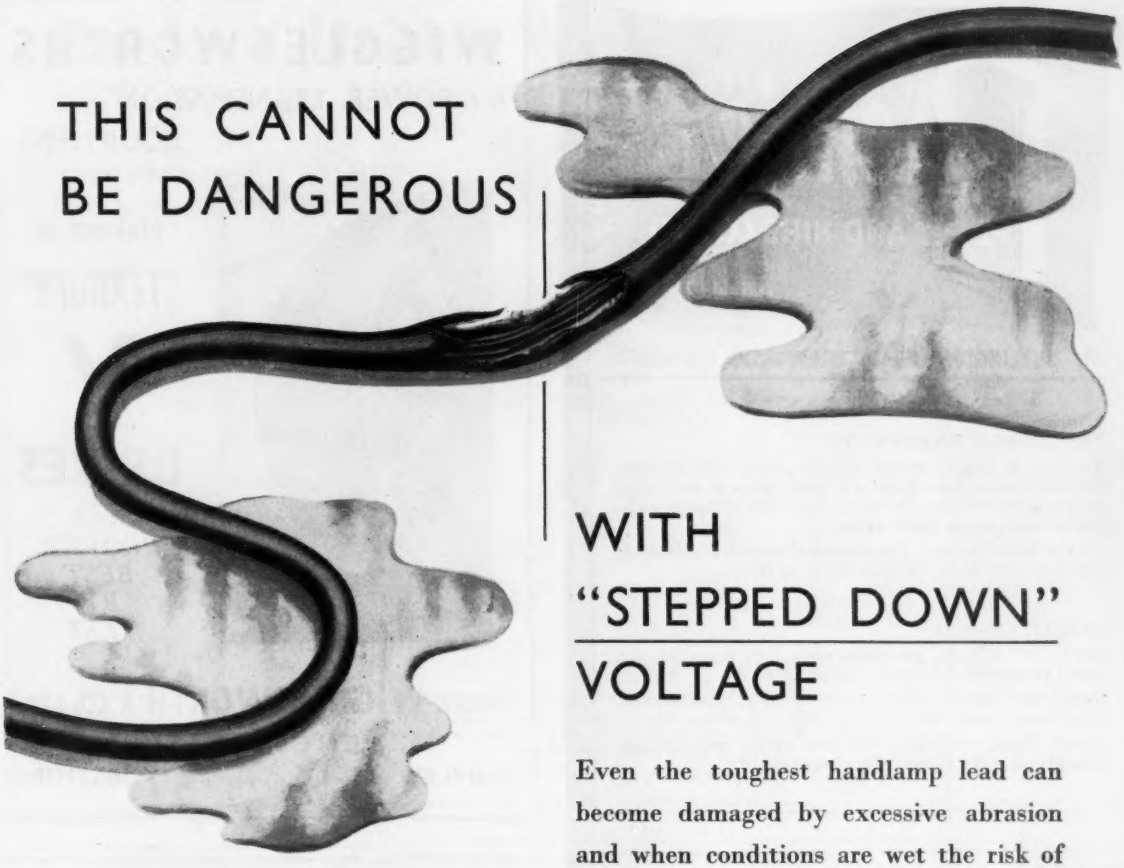

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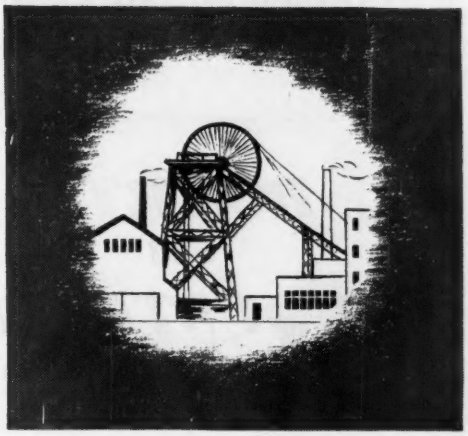

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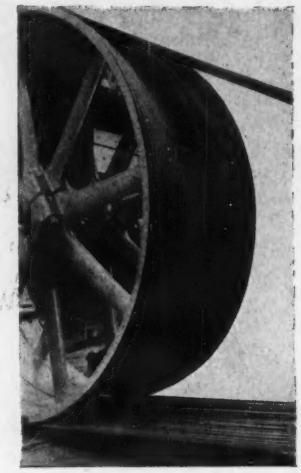

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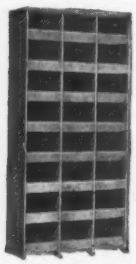

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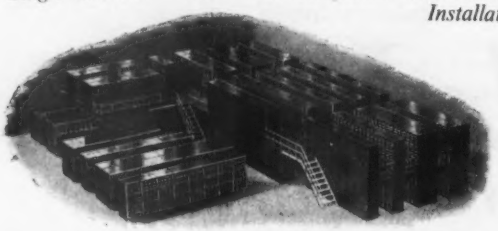

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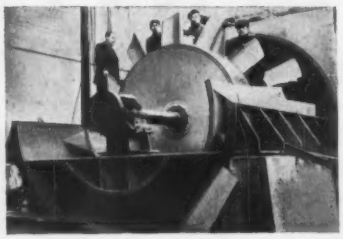

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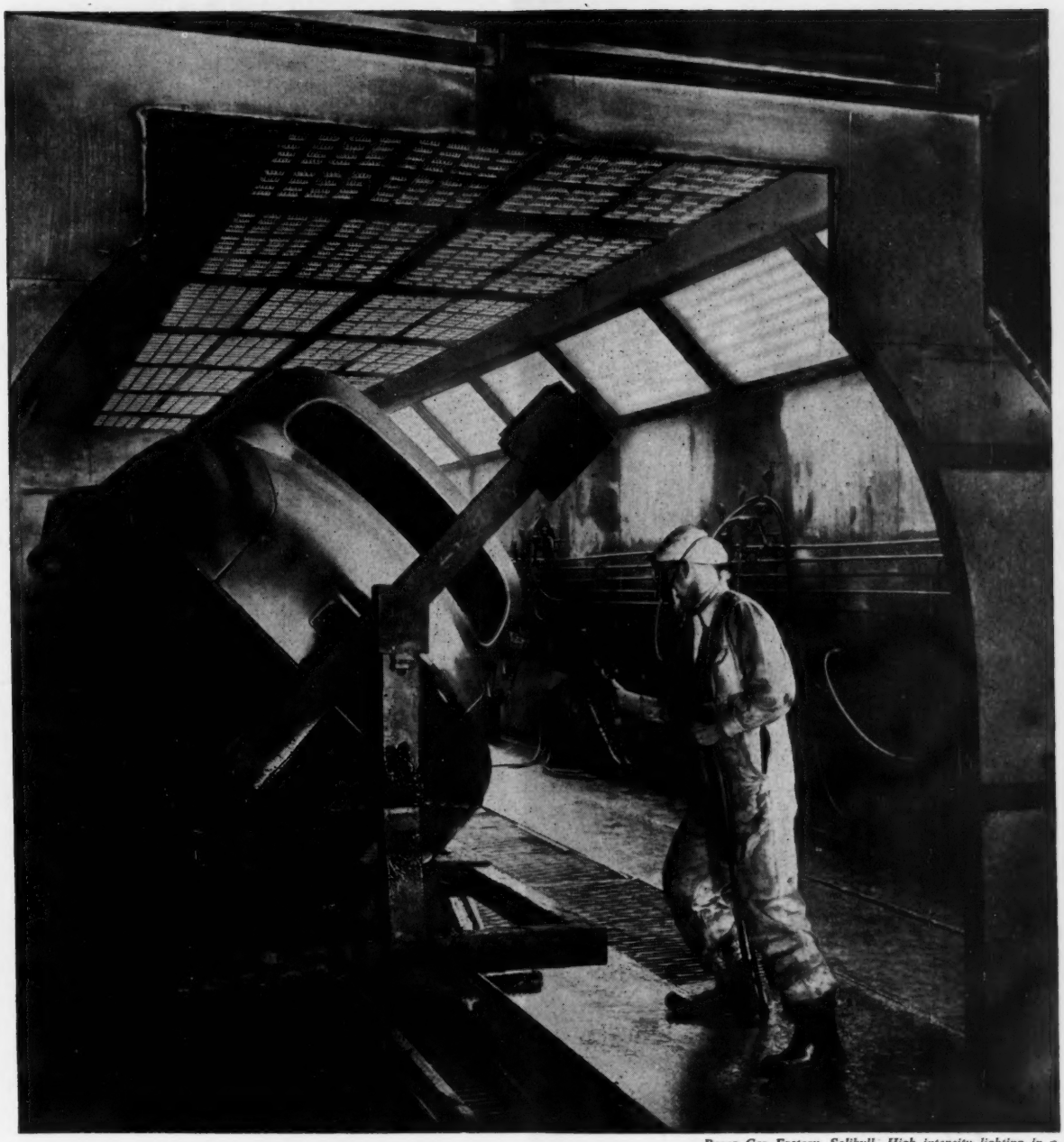

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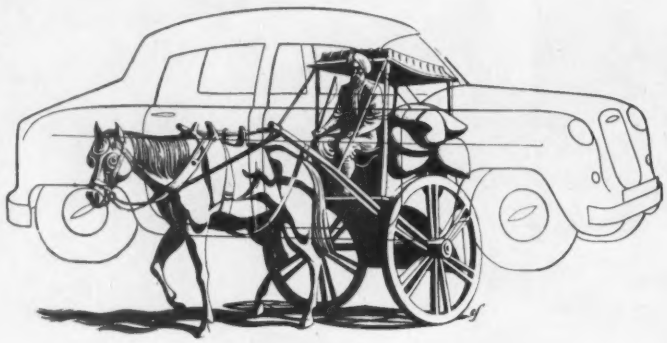

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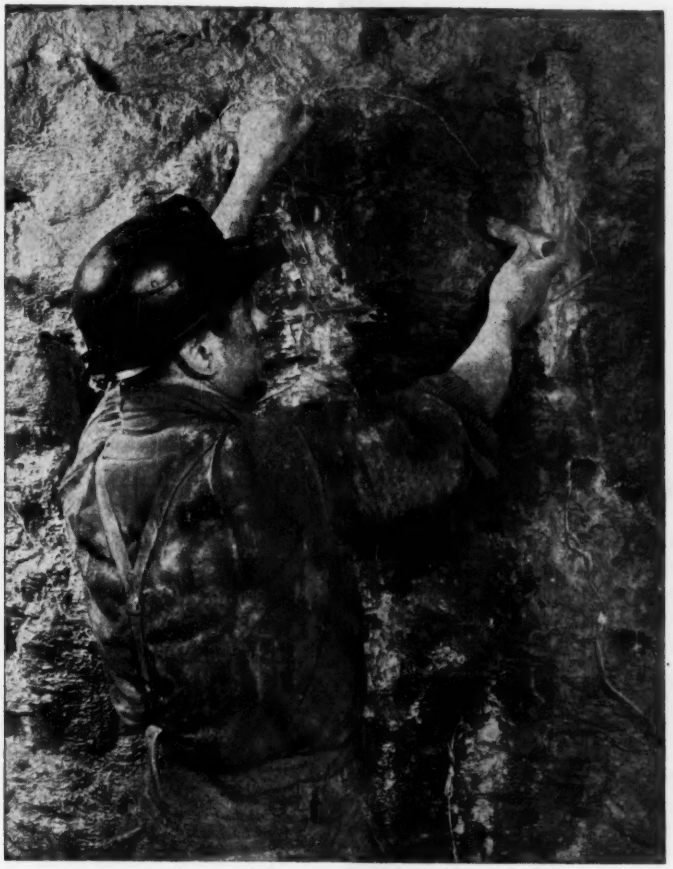

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*Established 1835*

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# NOTES AND COMMENTS

### The Straits Trading Co. and the Tin Position

The annual speech of the chairman of the Straits Trading Co. is always looked forward to with much interest in tin circles and this year's report, which will be found in another column of this issue, suggests, if it does not discuss at any length, many of the problems with which the industry is faced to-day.

More than this could not be expected when we remember that the major determinant factors are essentially outside the ambit of the industry itself—the policy of the United States in the matter of further stockpiling or its disposal, subsidizing Bolivian production and the continued operation of the Texas smelter—to say nothing of increasing use of substitutes. While above and beyond this there backs up the problem of Communist aggression in the Far East which just now bulks so largely in the councils of the Western nations.

Should a clear cut policy of resistance emerge it is essential to know where the line is to be fixed. Indo-China has never been an important tin producer—1,500 tons a year being its best level—but the same cannot be said of Siam, which produced around 17,116 tons in 1940; and were Siam to fall into the Sino-U.S.S.R. net what would be the repercussion in Malaya and even in Indonesia? With three major imponderables unresolved, there can be little wonder that a major note of interrogation is placed on any long-term forecasts on the future of tin.

There will be few to dissent from Sir Ewen's conclusion that the long-term outlook is for lower world production. With the exception of Brazil we cannot recall the appearance of any new tinfield in say the last quarter of a century; even Bolivia, which made such rapid strides in the early part of the century, must have been the source of the important shipments from the Peruvian vice-royalty at least as early as the beginning of the 19th century, as on October 5, 1804, an English force captured four large Spanish frigates which had sailed from Montevideo bringing 4,732 bars of tin for the Royal account. Whether a dwindling world output in days to come will fall below world needs is less easy to answer. The American estimate of a six to ten years' stockpile certainly suggests an expectation in that quarter that substitutes will continue to make increasing inroads into customary uses.

Whatever the future may hold in store the immediate position appears not unfavourable: the Malayan and Indonesian output this year is somewhat brighter than for the same period of last year, indicating that a price of say £725 a ton is satisfactory to producers. It is true that the Congo output has been heavily hit by the loss of the subsidized price of 1.21 c. per lb., but the Belgian Colony is not a big producer. Were Bolivian production to be heavily cut the effect would be more serious, but it is difficult to see this happening. Tin is the life blood not only of Bolivian national economy, but the sole hope of the great majority of its mining population—without its continued activity they must starve. We must anticipate therefore that every nerve will be strained to maintain as large an output as possible even at the cost of producing at some loss and of raiding ore reserves. Sir Ewen tells us that the Straits' second smelter at Butterfield is being reconstructed and should be in commission early next year so he obviously looks for an increasing supply of concentrates, possibly from Indonesia if the Texas smelter is closed down next month and the new republic is no longer administratively and sentimentally linked with Holland.

Sir Ewen probably reflects majority opinion in the Straits when he says that the International Control Scheme appears to favour the consumer more than the producer owing to the heavy financial burden it would entail: current price levels assure dredge mining a comfortable margin of profit while with the smaller Chinese workings closed down by last year's price collapse the more efficient and financially well off concerns have re-organized their workings on up-to-date mechanized lines and also appear to be comfortably placed while the company still awaits a settlement of its war damage claims its strong pre-war financial position is more or less re-established and the whole of the Malayan tin position seems on a sounder basis.

### Tungsten Price Fluctuations

The disorganization which the market for tungsten ores has for some time presented still continues and if we may judge by the frequent changes in the selling price of the Ministry of Materials is as perplexing to them as the dealers here and abroad. After advancing their selling price rapidly to 245s. per l.t.u. for wolframite and 240s. for

scheelite at the end of April the price has been progressively reduced by frequent cuts to 190s. per l.t.u. for both minerals at the beginning of the current week. The United States import price is also lower this week to $24-25 nom. per s.t.u. for 60 per cent grade plus a duty of $8 per s.t.u. According to a recent official hand-out in the United States the floor price in the U.S. remains at $63 per s.t.u. as compared with an import price including duty of say $33 per s.t.u. According to a recent Reuter message from Seoul exports of Korean tungsten ceased completely when the U.S. cancelled its tungsten purchase agreement with South Korea last month, and the South Korean Tungsten Corporation proposes to send a team to South-East Asia and probably Europe to explore markets. South Korean exports in 1953 are given as 8,000 tons to the U.S. alone, constituting more than 60 per cent of South Korean exports in that year. According to the official hand-out already quoted the President of the U.S. Tungsten Institute, Mr. W. L. Long, recently returned from a two months' trip to the mining area of South America. The Tungsten Mining Corporation is said to be owned 70 per cent by Haile Mines Inc., of which Mr. Long is the vice-president, while the remaining 30 per cent is owned by the General Electric. Not unnaturally perhaps Mr. Long is a staunch supporter of the U.S. $63 floor price, and he observed with approval that Argentina was observing the same "enlightened policy of government floor price purchase programmes with equivalent price levels to those of the United States." When he visited Brazil in April he learned that about 60 scheelite mines were threatened with closure owing to low prices in the world market which he attributed to foreign speculation. Our Portuguese correspondent has several times recently referred to the difficulties being experienced by Portuguese producers owing to the decline and variability of quotations. If the South Korean supply ceases for any length of time, increasing difficulty in securing the necessary supplies of this critical strategical material may obviously become even more marked, and we have no means of knowing if any supplies of Chinese concentrates are being shipped out to the free nations. Nor do we yet know whether the United States will cease stockpiling of tungsten ores under the new programme recently announced from Washington. Such then are some of the problems which confront producers and consumers alike and the answers to which cannot be quickly forthcoming.

### Annual Dinner of the Institution of Mining and Metallurgy

The Institution of Mining and Metallurgy held its annual dinner at Goldsmiths' Hall, London, E.C.2, on May 14, and was attended by about 150 members and their guests under the chairmanship of their President, Professor J. A. S. Ritson.

The toast of "The Institution" was proposed by Sir Gilbert Rennie, High Commissioner for the Federation of Rhodesia and Nyasaland.

He said that in 1953 the value of the copper produced was over £90,000,000, and this figure could be seen in its proper perspective when it was remembered that the gold mining industry of South Africa in 1953 was valued at just over £150,000,000. During the six years 1948-53 the industry had contributed almost £60,000,000 to the revenue of Northern Rhodesia, being rather more than half the total revenue of the country during that period. The exports of copper were valued at almost half that of the total exports from the federal territory in 1953. There was then in existence a Miners' Guild, no doubt a distant forerunner of the Institution of Mining and Metallurgy which dated only from 1892. The copper production of Northern Rhodesia was approximately equal to that of the rest of the Commonwealth. The country was the largest copper producer in the world with the exception of the United States. Its modern development could be said to be due not a little to the progressive policy adopted by the Government of Northern Rhodesia in 1951 concerning income tax legislation, whereby capital expenditure in respect of new mines was rated in a way that encouraged the mines to go on with their development. He was glad to be able to say that the same type of legislation had been repeated in the Federal Income Tax Act.

Mining companies, Sir Gilbert added, had been encouraged to do a good deal of prospecting west of the Copperbelt. There were good indications of valuable deposits in the Mufulira and other areas, and prospecting was being carried out at the present time on a very wide scale. The staff of the Geological Department of the Government had also been increased in recent years. He ended with a few words on race relations. A committee on which both Europeans and African mine workers were represented was sitting at the present time, and he hoped a solution would be found which would do something towards giving the Africans an opportunity for the advancement they sought without acting detrimentally to the interests of Europeans. The problem could be solved if good intention and goodwill were brought to the task.

Prof. Ritson, in responding to the toast, said that he came into metalliferous mining through coal mining. In discussing the progress of the Institution he said that it would shortly have to leave its headquarters in Finsbury Circus. It was seeking to purchase a house in the West End. Unfortunately this would involve separation from the Institution of Mining Engineers, with whom they had lived in perfect harmony since about 1930.

Finally, Professor Ritson deplored the lack of young recruits for the mining industry. Young men did not seem inclined to go overseas to the same extent as before. Yet it was an interesting, well paid, and healthy profession. Safety first was rather a bad motto if applied too rigidly. Anything worth doing was worth risking. He appealed to schoolmasters to do what they could to attract suitable boys to the industry.

Brigadier R. S. G. Stokes, President-elect, proposed the health of the guests. These included Sir Eric Bowyer, Permanent Secretary, Ministry of Materials; Lord Falmouth, Chairman of Governors, Imperial College of Science and Technology; Dr. W. J. Pugh, Director of the Geological Survey; Sir Harold Roberts, Chief Inspector of Mines; and the Presidents of the Institutions of Electrical Engineers, of Mining Engineers, and of Metallurgists, the Iron and Steel Institute, the Institute of Metals, the Geological Society, and the Society of Chemical Industry.

### Current Mining Legislation in Portugal

A Government Commission has been formed to examine and report on occurrences of uranium in Portugal, according to a recent despatch from our correspondent in that country. While some 50 concessions are registered at the Department of Mines, only the Urgeiriça mines, owned by the Companhia Portuguese de Radium Lda., have done any extensive mining operations.

Under a decree published on May 3 the export tax on cassiterite has been reduced to a more reasonable figure. The formula for the calculation of that tax is :

> .45 (price per kilo on base of contract price f.o.b. less 38)=X, this X being the tax payable.

While export of normal tungsten ore is very slack indeed, the recent price increase led to several sales being closed to German buyers for tungsten residues. Apparently Germany is the only country interested in this class of material.

# Australia

*(From Our Own Correspondent)*

Melbourne, April 30.

Northern Territory continues to be the centre of interest for uranium exploration. A change in mining policy is to be made at the Rum Jungle mines, which are being worked by Territory Enterprises Ltd., a subsidiary of Zinc Corporation Ltd., for the Commonwealth Government. The wet, soft and heavy nature of the ground has influenced the decision to change over from underground methods to open cutting and a contract has been let to the firm of George Wimpey and Co. Ltd., of the United Kingdom, for this work, which may require the removal of several million cu. yd. of material. This change-over will involve the diversion of the East Finniss River. The deepest shaft on the field has reached a depth of 500 ft., but underground conditions are such as to call for the close timbering of all openings. Mill construction is proceeding and the plant is expected to commence treatment late in the year. The Rio Tinto Company is reported to have been granted prospecting rights in the Northern Territory and to have its geologists investigating areas. A number of Australian companies are in the field and although many failures and much fruitless expenditure are inevitable, knowledge of the uranium potentialities of this part of Australia will be established with considerable certainty. At present the attraction of a high price for the minerals masks the many difficulties facing uranium mining, and the boom has been greatly fostered by press statements as to the Territory's wealth in uranium. Actually, there are many prospects over a wide area, but few may be expected to develop into commercial occurrences.

## A FURTHER DISCOVERY

Excitement has been caused by the discovery of uranium at Inglewood, 25 miles north-west of Bendigo. Inglewood is an old goldfield which was of some importance in early years. Country is granite and the degree of radio-activity reported is stated to be attractive. The Mines Department is making a thorough investigation of the locality, but no forecast can yet be made of the commercial possibilities of the discovery. This is the second discovery of a radio-active area in the State, the first being in an undisclosed locality in the north-east country.

Mount Isa Mines Ltd., Queensland, following discovery of radio-active material within 20 miles of its mines, has secured leases over likely areas. So far, the value of the radio-active occurrences cannot be assessed, and much work must be done before it is known if the indications may lead to anything of importance.

## PROSPECTING ACTIVITIES

A recent report advises that Broken Hill South Ltd. has been granted an authority to prospect for copper and gold over an area of 9 sq. miles surrounding the old Mount Elliott mine at Selwyn, North Queensland. Some 30 years ago the Mount Elliott mine was worked by a large company with treatment plant including concentrator and smelter. There were then adjacent mines in operation, all of which have been closed down for many years. Broken Hill South has, since the war, given considerable attention to prospecting in the north of the State and has done much surface examination and diamond drilling in the Cloncurry district. The company has already purchased the Trekalano mine, near Duchess, in the same locality, and has carried out extensive drilling at Mount Oxide and Kuridala, in the search for lodes large enough to warrant large scale mining, and treatment at the mines. It is reported that drilling on the area has proved a new copper lode.

For many months the Broken Hill Proprietary Co. has been investigating portions of the Northern Territory. The latest move is the despatch of a party into Arnhem Land, which hitherto has been practically a closed area, the country being regarded as a native reserve. The permit recently granted allows prospecting and mining under certain conditions. The company will make a preliminary survey of a central section of Arnhem Land. A working period of six months is expected before the next wet season.

## KALGOORLIE SOUTHERN PROBES FOR GOLDEN MILE EXTENSION

This company is continuing its drilling programme to investigate the problem of recurrence at depth of the auriferous formations comprising the Golden Mile, to the south of that area of the Kalgoorlie, Western Australia, goldfield. Drill hole No. SE 6 is reported to have passed through zones of intermitten rock alteration with quartz stringers carrying gold between depths of 1,336 ft. and 2,611 ft. Highest value obtained was 7.1 dwt. gold per ton in a core length of 17 in. Similar formations occur at the north end of the Golden Mile, and the intersections are regarded as significant.

Wellington Alluvials Ltd., a well equipped dredging enterprise, on the Macquarie River, N.S.W., is a subsidiary of the Broken Hill Proprietary Co. Ltd. Results generally have been disappointing, and in the 18 years of the company's life, four dividends, totalling £A114,583, have been paid. During the course of operations costs have increased from 5¼d. per cu. yd. to 1s. 3d. approximately, and for some time value of the ground dredged has been consistently low. Accumulated loss increased to £A68,000 and directors gave serious consideration to suspending operations. In the recent months there has been substantial improvement in the company's affairs.

Golden Plateau is second in importance as a Queensland gold producer. Originally a prosperous undertaking, a low level was reached, continuing for several years. Over a year ago high-grade ore was met in a new shoot, and there has been substantial improvement in prospects, the average return for the first nine months of the 1953-54 financial year being 9.9 dwt. gold per ton, following an average of 10.49 dwt. for the previous financial year. The position appears satisfactory, but final results for the period will be affected by higher costs and the disappearance of the premium gold sales. Tonnages treated have been increased, whereby costs will be reduced. Since commencement of operations in 1932 the company has paid £A1,750,000 in dividends.

## COAL PREPARATION

Not all New South Wales coals are equal in quality to the Greta and Borehole seams, and the rapid advance of mechanization has resulted in a markedly increased quantity of dirt in the coal marketed. Two or three private collieries operated coal washing plants. The most important of the pioneer plants were those of the Broken Hill Proprietary Co. and rather later, the Australian Iron and Steel Co., preparing coal from their own collieries for coking for the steel works. In the past two years a number of coal washing plants, employing heavy-media separation, have been erected in the Western, Newcastle and Maitland fields. The latest to be brought into operation is at the Newston colliery, a highly mechanized mine, south of Newcastle. Despite this recent rapid progress, coal preparation in this country is only in its infancy. Expansion of this practice can result in greater extraction of coal reserves in the Maitland field.

# Some Recent Work on Titanium

By GRAHAM OLDHAM, B.Sc., F.R.I.C., D.L.C., M.Inst.F.

**From time to time during the last two years rumours have been circulating regarding alleged new methods of production of titanium. It has been reported that many research and development organizations have been concentrating on possible electrolytic processes although these must inevitably be associated with many difficult chemical engineering problems. From the review which follows it appears that there are two main approaches to the problem of titanium production. First is the reduction method using a more electropositive metal typified by the Kroll process and second is the electrolytic method, by which means such elements as aluminium, magnesium and chlorine have been successfully produced on a large scale. Whatever the process which finally emerges, however, it seems certain that more experience of large scale operations will have to be obtained.**

In 1952 Kroll[1] published a comprehensive review of the position then, and, in speculation on possible new processes, concluded that the discovery of a completely new, cheap, and efficient method of titanium production was unlikely. The Van Arkel-de Boer process is costly and does not permit of really large-scale production and hydrogen reduction methods he believed offered no hope of a solution of the problem.

It would seem that, for the moment, the Kroll process is responsible for the bulk of the production. The batch size has already reached the 3,000 lb. level and ingots of between 2,000 and 4,000 lb. in size have been produced in a new cold-mould electric furnace. It should be remembered that although the energy required to reduce titanium oxides to titanium is theoretically less than that for aluminium or magnesium, there are a number of fundamental difficulties which any successful method must overcome. Firstly, the solid metal retains all common impurities in the form of solid solutions. Secondly, the hot metal is extremely reactive and speedily becomes contaminated if exposed to an atmosphere containing oxygen or nitrogen, or if it comes into contact with carbonaceous material. Finally, the molten metal attacks all known refractories to some extent.

**Titanium products**

## TRENDS IN RESEARCH

Since our last comprehensive review of the subject in July, 1952, the technical and patent literature which has appeared does, at least, give some slight indication of the trends in research and development. A certain amount of attention is still focused on iodide titanium, the properties of which have been very thoroughly investigated by McHargue and Hammond.[2] A method for the production of high purity titanium iodide suitable for thermal dissociation to the metal has been claimed by the Titan Co. Inc., and reported in some detail elsewhere.[3] The production of titanium tetrachloride is still of great importance and is likely to remain so, irrespective of whether the Kroll process is used or not. Wilcox[4] has claimed a process in which ilmenite and chlorine are separately heated to between 1,250 and 1,500 deg. C. before being brought into contact to produce the chloride. The National Lead Company have patented a number of processes for the preparation of pure tetrachloride. These include distillation with iodine or metallic iodides and treatment at the boiling point with an alkaline earth hydroxide and a hydrated oxide of aluminium, titanium, or chromium.[5] The Titan Co. Inc. claim a method of purification[6] by distillation with a lead base alloy as sodium-lead alloy or a calcium-lead alloy.

Winter and Du Pont have patented a process[7] in which discrete droplets of molten reducing metal are floated on the surface of a liquid titanium tetrahalide. These are prevented from coming into contact with the sides of the reactor by producing a vortex in the molten salt by means of a mechanical impellor. In a recent American patent[8] based on the reduction of the tetrachloride, the $TiCl_4$, in gaseous or liquid form, is introduced into a molten bath of magnesium chloride immediately above the point at which magnesium is introduced in the form of a gas, liquid, or powder. The salt bath temperature is kept above the boiling point of magnesium and the titanium powder dispersed in the melt is concentrated and recovered by acid leaching.

The National Smelting Company, in a Belgian patent,[9] claim a vapour phase reduction process using a more electropositive metal such as sodium, potassum or magnesium. Part of the heat required to maintain reaction temperature is provided by introducing an excess of reducing metal together with chlorine. Many processes of what we may call the Kroll type involve the use of expensive inert gas and a method devised by H. C. Starck[10] claims to avoid this. A vacuum reactor is employed and gaseous titanium tetrachloride in small quantities is used at low vacuum and room temperature in order to wash out remaining air after evacuation to .1 mm. of mercury. The temperature is then raised to 700 deg. C. and titanium tetrachloride admitted in theoretical amount so that reaction with the electropositive metal already present in the reactor can occur.

## METALLIC TITANIUM BY ELECTROLYSIS

Turning to the question of the electrolytic production of titanium, both the Dow Chemical Co. and Du Pont have been reported as developing electrolytic processes. Titanium powder, comparable in purity with that obtained by the Kroll process, has been prepared by the electrolysis of a titanium chloride, lithium chloride, potassium chloride eutectic.[11] The electrolysis is carried out at 550 deg. C. in hydrogen with a p.d. of 1-2 volt and a current density of 6 amperes per sq. cm. The efficiency is of the order of 60 per cent.

Barely three weeks ago the Shawinigan Water and Power Company announced that it had succeeded in utilizing an electrolytic process in the manufacture of high-grade titanium metal. The company is planning to expand this work as a step towards commercial production. The Shawinigan electrolytic process yields metal of markedly high grade, and it is believed that by its use it will be pos-

sible to make titanium on a commercial scale at substantially lower prices than those previously possible. Officials of the company believe the method to be adaptable into a continuous process instead of the batch systems hitherto used in all titanium producing countries.

The Titan Co. Inc. have claimed the production of metallic titanium by the electrolysis of a fused salt mixture containing NaCi, $SrCl_2$ and $TiCl_2$.[12] The electrolysis is carried out in an inert gas atmosphere in a cell having a porous diaphragm surrounding the cathode which is in the form of a tantalum rod. $TiCl_3$ may be used instead of the dichloride but in this case the particles are coarser and adhere to the cathode. The cell contains NaCl (27 parts by weight) and $SrCl_2$ (73 parts by weight) in the fused state and the titanium salt is passed in through the hollow cathode. Electrolysis is carried out at 700 deg. C. with a p.d. of 4 volts and the titanium produced is cooled in an inert gas. It is finally washed with dilute hydrochloric acid.

Patents claimed by the Horizons Titanium Corporation[13] described a method by means of which metallic titanium is obtained by the electrolysis of titanium monoxide in a fused bath of an alkali or alkaline earth halide. The electrolysis must, of course, be carried out in an inert atmosphere.


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# South African Uranium Survey

**A note of caution emphasizing the fact that only certain Witwatersrand gold horizons were economic uranium carriers was recently sounded by Mr. C. S. McLean, a former president of the Transvaal and Orange Free State Chamber of Mines, when he presented a survey of the uranium project to a joint meeting of the Chemical, Metallurgical and Mining Society of South Africa and Witwatersrand University. The following article, received under recent date from a South African correspondent, points out the need for research in the uranium extraction process, and follows with a comprehensive survey of the economic situation of the Witwatersrand uranium producers to the first quarter of this year.**

Towards the end of April an important survey of the uranium project was presented to a joint meeting of the Chemical, Metallurgical and Mining Society of South Africa and Witwatersrand University by Mr. C. S. McLean, a former President of the Transvaal and Orange Free State Chamber of Mines, who has been intimately associated with the project from its earliest days. In the course of his survey Mr. McLean commented that the gold mining industry has always followed the policy of releasing the fullest possible information about its operations but, like the South African Atomic Energy Board, in respect of uranium operations it was bound to secrecy by the terms of the agreement with the United States and British authorities. This secrecy, justified on the grounds of security, was seriously embarrassing the industry and as plants were brought to the production stage the embarrassment was increased. The Board had already sought relaxation of the stringent prohibitions against publication of information, but without success.

## SCOPE FOR RESEARCH

Referring to the occurrence of uranium, the speaker mentioned that almost any conglomerate of the Witwatersrand formations is uranium-bearing but only certain horizons were worth while for extracting the metal.

Regarding the extraction process, Mr. McLean disclosed that notwithstanding the successful operation of several plants, there remains ample scope for research. This is being advanced by the South African Government Metallurgical Laboratory, in the United States and Britain. Looking ahead, Mr. McLean commented in his concluding remarks that South Africa's uranium industry "will eventually rank—as the gold mining industry does in its field—first in the list of producers of this substance, often described as the wonder metal that ushered in the Atomic Age."

The advent of the uranium production programme of the gold mining industry has presented a very favourable opportunity for extending the lives of the relevant mines, an important consideration for the older producers in particular. One of the processes involved is the lowering of the overall gold grade, resulting from the inclusion of greater tonnages of diluent ore of a marginal, and taken alone, unpayable grade. In the case of the West Rand Consolidated returns for 1953, 1952 and 1951, the respective yields were 2.76, 3.05 and 3.18 dwt. per ton of gold, while the total working profits were respectively £1,869,634, £1,757,161 and £2,137,143; included in these amounts were the respective net uranium profits of £1,367,998, £124,707 and nil. Extensions to the uranium and acid plants are now in progress to the value of £550,000, and the additional production therefrom is expected by the year-end. In the first quarter this year, the substantially increased uranium profits raised the overall working profits to £517,817 from £419,084; but after allowing for taxation and the first repayment of the uranium loans at £54,311, the net overall profit amounted to £276,506 against £302,084 in the last 1953 quarter.

## THE INDIVIDUAL PRODUCERS

The ratio of the uranium loan repayments by the Western Reefs and Daggafontein mines to the net uranium profits was much higher than the West Rand Consolidated instalment. At Western Reefs in the first quarter the gold working profit was £194,599, the estimated uranium profit £270,000, and the first uranium repayment £151,193: in the preceding quarter the respective figures were £214,108 and £228,000; the tax and lease liability being nil. Daggafontein's first quarterly returns were: gold working profit £909,177, uranium profit £313,000, tax and lease liability £574,900, and the first uranium repayment £127,825; the previous figures were respectively £918,269, £257,000, £548,000 and nil. Western Reefs has to date milled only Gold Estates Reef but will treat Vaal Reef as well in the future. The 1953 and 1952 gold yields were 4.1 and 4.2 dwt. per ton. At Daggafontein the respective yields were 4.7 and 4.8 dwt. per ton; in 1953 the gold and uranium working profits were £3,994,717 and £644,991, taxation and lease payment £2,075,029 compared with £4,869,401 (gold only) and £2,264,604 in 1952.

All the above three mines face increasing tax and lease payments in the years immediately ahead, now that the capital expenditure programmes have largely been com-

pleted, especially in respect of the uranium programme. In the case of the Western Reefs and Daggafontein mines it has not been made clear whether full physical production has yet been reached ; in any case, it should be noted that at the former mine the Gold Estates horizon of the Elsburg Reefs is not considered as high a uranium grade as the Vaal Reef, ore from which will also be treated in due course ; at the Daggafontein mine the combined feed of Kimberley Reef residues and Main Reef concentrates is not as high a uranium grade as the Kimberley Reef alone.

At the Blyvooruitzicht mine the gold yield has also declined slightly ; this mine has not yet started the repayment of its uranium loans and this may signify that full production has not yet been reached ; in the first quarter the net uranium profit rose to £243,233 from £147,210, while the overall working profit improved slightly to £1,547,769 from £1,538,127. At Stilfontein uranium production and the development of the mine is still too much in the early stages to permit comment on the returns of profits and grade milled ; in the first quarter milling advanced by 15,000 to 226,000 tons, the gold yield to 6.315 dwt. from 6.101, and the net uranium profit to £71,575 from £44,833 ; the smaller capital expenditure in the first quarter indicated that the uranium construction programme is nearing completion. A somewhat unexpected development in the uranium programme late in April was the announcement that Western Holdings—one of the declared uranium mines—has conducted sampling that shows the uranium content to be such as not to justify hopes that uranium production will be an immediate source of additional revenue to the company.

## FAULTING IN THE O.F.S.

The quarterly reports generally came up to expectations, both in respect of the developing mines and also many of the older producers. However, and the comment applies to the Odendaalsrus Sector of the Free State field particularly, the high ratio of the total development footage to the sampled footage indicates a relatively marked degree of faulting, at least comparable to the conditions on the Western Reef mine, even after allowing for the development footage preparatory to full scale driving, raising and winzing on reef. At the Harmony mine the labour was reported as satisfactory ; though payability declined somewhat, values improved markedly to 688 from 450 in.-dwt., while from the start of these operations payability has averaged 94.7 per cent and values 624 in.-dwt.; the late arrival of certain uranium plant and equipment has somewhat retarded erection. Development at Virginia was dislocated to some measure by the temporary switch of the No. 2 Shaft to ventilation duties ; in the No. 1 Shaft area results on reef were lower than previously, but preparations for stoping were started ; trial milling operations were continued and the capacity is being extended to 75,000 tons a month.

The Merriespruit mine attracted attention through the noteworthy advance in payability and values to 85.9 per cent and 563 in.-dwt. while the resumption of sinking the No. 2 Shaft should not be long delayed. The yield at the Saint Helena mine continued to improve in the first quarter this year, to 4.38 from 4.21 dwt. per ton ; milling would doubtless have advanced further but for the short working month, which probably also adversely affected working costs ; payability rose and values jumped to 509 from 371 in.-dwt.

The only change of note in the development results of the Freddies mines, which are to be amalgamated according to proposals announced, was the higher payability in the Freddies South mine, to 80.1 per cent from 62.64 per cent ; both mines improved their milling rates and stoping continued on a limited but gradually increasing scale but the number of stope faces available remained inadequate ; operations apparently continued to be retarded by the "khaki" shale bands in the hanging wall. In the Free State Geduld mine development on reef was again limited and confined to the No. 1 Shaft area, where 50 ft. averaged 1,316 in.-dwt.; total development, however, increased to 13,485 ft., a good deal of this undoubtedly being preparatory to reef development, and some being perhaps due to faulting. Milling at Western Holdings was slightly higher but the more pronounced rise in the grade was responsible for the advance in working profits to £130,109 from £91,508 ; development was maintained but the lower sampled footage reflected better values, 678 dwt. against 561 ; the haulage to the Free State Geduld mine was advanced another 200 ft. and a second boxhole disclosed 1,091 in.-dwt. on the Basal Reef.

## PRESIDENT STEYN ENTERS PRODUCTION

Test runs were started in the President Brand reduction plant ; the No. 2 Shaft was equipped and development started ; the total footage in the No. 1 Shaft area was stepped up considerably and a greater footage sampled, 3,140 ft. averaging 1,606 in.-dwt. against 2,275 ft. and 1,769 in.-dwt. in the previous quarter. With its two shafts connected, the President Steyn mine has entered the production stage proper ; extensions of the reduction plant capacity to 125,000 tons a month are in progress from the present level of 75,000 tons ; a lower footage was developed and sampled than in the previous quarter but values were somewhat higher at 557 in.-dwt.

Other than the marked increase in the total footage at the No. 1 Loraine Shaft, reef development results showed only small changes ; preliminary development was started from the completed No. 2 Shaft. At the Welkom mine deepening of the two shafts is to be started ; that in the No. 2 Shaft will be commenced in the current quarter.

In the Klerksdorp area the Western Reefs mine continued to obtain satisfactorily high values on the Vaal Reef horizon and the Vaal Reefs mine continued preparations for sinking the twin sub-vertical shafts ; values on reef were again good. High average sinking rates are being maintained in the two Hartebeestfontein shafts, No. 1 being sunk 982 ft. to 2,136 ft. and No. 2 1,096 ft. to 1,761 ft. in the first quarter. Sinking operations were continued at the Buffelsfontein mine. The Ellaton pipeline to the Stilfontein uranium plant was completed and the pumping of residues for treatment should be started soon ; the first productive quarter saw 71,000 tons milled for a yield of 4.921 dwt. and a working profit of £49,392 ; total development and sampled footage were raised but the payability was slightly lower and values over 502 against 545 in.-dwt.

## THE BETHAL AREA

So far only two of the major groups have referred to drilling in the Bethal area this year. Union Corporation reported the location of a payable area of Kimberley Reef, probably in the Kinross-Trichardt section and further drilling is being conducted to define the area of payability more accurately. Underground prospecting may be advanced in due course. The Mid Wits company of the Anglo-Transvaal group and New Consolidated Eastern Areas Ltd. are jointly drilling in an area under option of about 195,000 claims, also in the Bethal area. No gold values have yet been reported.

The native complement on the gold mines continued to improve in March, and results have already reflected the improved availability in the labour. This improvement, however, is spread over the whole industry, producers and developers alike. Any increase in the tonnage milled should therefore become more apparent in the case of those groups which have a greater proportion of producers to developers among their associated mines.

# Instruments in Modern Smelting Practice

By C. C. DOWNIE

**The diversified character of those instruments used to check the performances of smelting furnaces arises owing to the fact that different features of the smelting operations must be maintained under strict control. The following article presents interesting notes on the more important of these instruments, describing their construction and uses, and indicating their places in the smelting unit.**

Instruments for checking the performance of furnaces engaged on smelting operations are of a somewhat diversified character in order that the different features may be maintained under the closest possible control. Because of the vagaries of conditions within the blast furnace, with its more or less limited working space, control of an exacting order is usually more complicated than with reverberatory furnaces in general, while the latest rotary furnaces tend towards the most uniform working, but have other limitations. Generally speaking blast smelting is always the cheapest in respect of fuel, labour and floor space, irrespective of whether copper, lead, tin, nickel, or cobalt materials are smelted.

In earlier years comparatively little regard was paid to the heat which was withdrawn by the water-jackets, but to-day this, together with the heat of the flue cases, is used as a check on the total fuel consumed. Although the measurement of temperature is too well known to justify repetition, more attention has to be given to the quantitative measurement of heat in the constant flow of water from these jackets. While there are numerous devices such as gauges and other simple appliances for industrial plants, which can function dependably, and are relatively cheap, a more exacting form of instrument is the thermo-electric calorimeter, equipped with electrolytic counter. This comprises an orifice-type instrument with a ring balance, which controls the circuit closing period in accordance with the rate of flow on a switch wheel.

The latter rotates at constant speed, and the measuring current is supplied by thermo-couples having the hot soldered joint in the supply, and the cold joint in the return branch, while the amount of heat given off is directly registered by the electrolytic counter.[1]

In one large blast furnace where a total of 75,000 gallons of water were required per hour, the passage through the pipes at 420 gallons per min. was at a velocity of 4.2 ft. per sec., i.e. using 7 in. dia. pipe lines. In order to forestall influences due to the condition of the line pipe, and irregularities such as protruding packing and the like, the measurement of flow has benefited by improved throttle and orifice-type instruments. These incorporate the orifice in the line, besides special flow tubes of definite length. The ring balance has found a wide range of use in these orifice-type meters (for also ascertaining effective pressure) and recent refinements are towards enlargement of the measuring range and increased sensitivity.[2] In order to measure blast pressure, inclined-tube manometers and manometers working on the zero-point principles are still used.

## HANDLING COMPLEX MATERIALS

When handling complex materials, where a certain refractoriness may unexpectedly exhibit itself, and ultimately lead to wide variation in the pressure, a more reliable arrangement is necessary. In practice this is seen where high chromium contents are present, and less frequently where titania or zirconia by themselves make appearance, and exert a clogging influence, not necessarily at first, but after a high percentage of briquettes have been included in the charges. Small-scale tests are literally worthless in this connection. Where the pressure is subject to large and rapid fluctuations, a form of precision pressure gauge, which attains the accuracy of the zero point process, and meets the foregoing requirements, is available. This device has a measuring range of between 0 and 8 in. water column, while for the entire range a reading accuracy of .0004 in. water column is guaranteed. The instrument takes the form of a kind of U-tube with concentric legs filled with water as the sealing liquid, wherein the water rises in the internal tube and takes along a float free to move in the interior, upon the application of pressure to the outer leg. A glass scale is carried by the float and is guided at its upper-end by two rollers running on V-point bearings. This gives a frictional turning moment of slightly less than the lift on the float, which corresponds to .001 mm., or .00004 in. water column. Through the medium of a reading microscope at 20 x magnification this scale is observed and with the assistance of a micrometer motion fine adjustment is effected.[3]

## FUME AND FLUE DUST

The matter of measuring the density of smoke as it emerges from stacks most commonly relates to smoke-prevention activities but has also been adapted as a means of approximately ascertaining the contents of flues from both lead and zinc smelteries. In an instrument used for this purpose, by employing a concave mirror, the length of this body is rendered independent of the width of the flue and the arrangement can be built-in from any accessible side of the flue by this means. To take care of keeping dust and smudge from the mirror, and the glass window which protects the front part, a flushing air current is employed. The means of measurement depends upon gauging the varying absorption, by the flue gas, of the light emitted by a filament lamp, where the absorption varies with the darkness of the gas and where the radiation receiver used is a small thermo-pile. The latter is well known in connection with other instruments for its accuracy, the electrical energy generated is measured by means of a moving-coil instrument and it is claimed that this accuracy of measurement is not influenced by the flushing air.

What light rays issue from the filament lamp are for the most part deflected by an oblique plane mirror into the flue gas stream, to be returned by the concave mirror and passed through an opening in the plane mirror on to the radiation receiver. Through this opening a small portion of the ray is conducted on to a second comparison, radiation receiver and the two radiation receivers are connected in opposition. In this way the difference in the radiation density is directly measured and a high degree of precision is attained. This is particularly so in the range of low smoke opacity, and with this method of connection differences in the brightness of the filament lamp due to fluctuations in voltage are automatically compensated. For registration an edgewise measuring indicator with Ringelmann scale may be used, while for recording, a chopper-bar tracer is employed.[4] It should be added here that flue gases containing the rarer elements from various smelteries are to-day attracting attention, which in pre-war days were frequently more or less ignored. This relates alike to selenium, tellurium, thallium, gallium, caesium and indium.

In earlier years samples of the flue gases were simply withdrawn periodically from the flues through a filtering medium, the weight computed per cu. ft. of gas, and the contents then analysed in the laboratory. When supple-

mented by the use of the foregoing density meter the total contents of solid matter passing through the flues is continuously recorded. In other directions, electronic devices have recently become prominent for the same purpose in different metallurgical pursuits in the U.S.A.

Still further, an electronic means of ascertaining how the cleaning of flue gases, or alternatively, the efficiency of filters can best be determined, uses two improved electronic methods. In the first of these the phototube is shielded from the direct rays of the illuminating source and from extraneous reflections, whereby only that light which is scattered in the particular direction by the dust reaches the phototube. In the second method, a light beam shines directly at the phototube which is arranged to look only at the source, and dust between source and tube causes a decrease in illumination by scattering light out of the beam, while the precise nature of the scattering is determined by the wavelength of the light used, and the particle size.[5] Formerly there was no means of systematically checking the efficiency of electrostatic filters.

## AUTOMATIC RECORDING OF GAS DENSITY AND SLAG VISCOSITY

The gases emitted from various hearths of different operations largely consists of sulphur dioxide, whether this relates to roasting, reverberatory, or blast smelting, or converter practice, in connection with copper, nickel, cobalt, lead or zinc. Apart from arsenic, the presence of minute amounts of selenium, etc., and the exception of calcining calamines, and processes which involve chloridizing roasting, the actual gas, free from dust, is mainly sulphur dioxide.

As the associated carbon dioxide and monoxide do not become disolved appreciably in water, various scrubbers and condensing arrangements are engaged to absorb this gas, although recently double electrostatic filters or precipitators are claimed to efficiently remove the sulphur. An important instrument in this work is the gas-density recorder which takes a continuous record on a chart as the dust-free gas passes through, and which is based on the principle of a balance. Within a chamber which is completely filled with the gas to be measured the lifting force of a glass sphere filled with nitrogen is measured with the assistance of a weigh-beam with knife-edge fulcrum and the counterweight of which is a smaller glass sphere with four openings. Because of its shape the actual surface of the latter is of the same area as that of the lifting sphere, whereby deposits of moisture act equally on both sides of the balance and forestall erroneous results. To permit the balance to be equilibrated for various measuring ranges, and to allow the full deflection angle to be utilized, adjusting weights are included. By means of a magnetic coupling this deflection is transferred to a pointer and a high degree of sensitivity is attained as all friction in transmission is avoided.

Automatic pressure and temperature compensation is included in the measuring gear. This comprises a pressure gauging box with metal membrane which acts on an adjustable compensating weight and which gauge is directly attached to the balance system and communicates with the gas space of the lifting sphere by a pipe. Pressure compensation is within ±20 in. water column, and temperature correction within ±15 deg. C. The consumption of gas approximates to .07 cu. ft. per min., and a pressure of some 1.2 to 1.6 in. water column is required at the entry nipple to ensure a continuous supply of fresh gas to be measured. Provided the least density difference between the bottom and top values of the scale is .006 lb. per cu. ft. or more this recorder may be applied to any measuring range and the accuracy of indication is ±1 per cent of the terminal value of the scale. Besides a suppressed zero point, the record is in the form of a dotted line, produced by a chopper-bar which prints the position of the pointer on moving paper strip at 30 sec. intervals. A rare-metal coating protects the interior from corrosion and the outfit is accommodated in a metal container.[6] While this form of arrangement can be adapted to continuously measure and record the density of various gases, an alternative type is constructed specifically for recording the sulphur dioxide in flue gases.[7]

Lastly, the matter of the fluidity of slags from various smelting operations has frequently caused no little concern since their separation from matte, speiss, or metal, depending on differences of specific gravity, is not of the same value if the slag is viscid.

Earlier methods of running the mass through perforated plates and noting the time occupied were of little practical value. It is of interest to observe that an improved form of apparatus has been devised for automatically recording the viscosity of alternative types of material such as plastics, bituminous materials, and other commodities of low melting point. It has to be made clear that a certain adaptation of the existing outfit would be required to make it practicable for testing slags or materials of higher fusion point. As it is, the principle of ascertaining the viscosity depends on the fact that the torque of a small special motor is transmitted by way of a lever to vanes which circulate and knead the mass and is directly affected by the viscosity. The form of the vanes is adapted to suit the needs of the particular material under test.

The test is carried out in comparison to standards using the same temperatures to retain the mass at a specific condition, and which thereby permits the results to be automatically recorded on a chart or viscosity curve.[8]

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3. Paul de Bruyn, Mannheim.
4. Siemens and Halske, Berlin.
5. Philco Corporation, Philadelphia, U.S.A.
6. Pollux, Ludwigshafen/Rh.
7. Leeds and Northrup Company, Philadelphia, U.S.A.
8. Brabender, Duisburg.

# Initial Shipment for Kitimat

The first shipment of Jamaican alumina refined from local bauxite has left the Caribbean and is *en route* through the Panama Canal to Alcan's plant at Kitimat, British Columbia. The shipment comprises 11,000 tons and, as the first shipment of alumina to Kitimat, establishes the supply-line for what may become the largest integrated aluminium operation in the world.

The first stage of the hydro-electric power-and-aluminium complex in British Columbia, costing $275,000,000 and more than three years in construction, goes into operation this summer. It has been built by the Aluminium Company of Canada Ltd., principal subsidiary of Aluminium Limited.

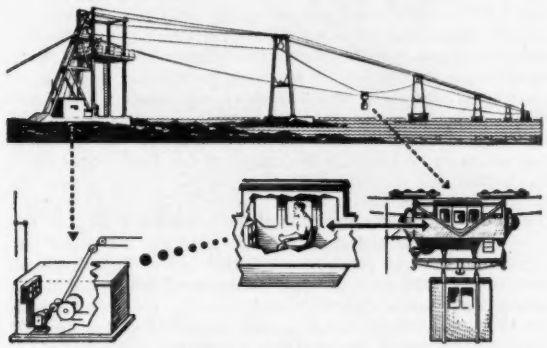
Production of alumina in Jamaica has been under way since early last year by Alumina Jamaica Limited, subsidiary of Aluminium Limited, Montreal, and its plant is being expanded to supply the 20 or more boatloads of alumina per year required to supply Kitimat and other users. Expansion of Kitimat to its full smelting capacity would require more than 100 cargoes of alumina per year. The company was the first to explore and acquire bauxite deposits in Jamaica. More than $30,000,000 has been invested thus far in developing the new operation. Extraction of the alumina on the spot by chemical processes results in shipping savings of 50 per cent compared with the movement of raw bauxite.

Shipments will be by bulk rather than the traditional method of bags and the alumina is discharged directly into the ship's hold. This technique speeds up loading to a rate of 600 tons an hour.

# MACHINERY AND EQUIPMENT

### Artificial Islands Aid Oil Search

Now under construction in the South China Sea, nearly a mile off the coast of British Borneo, are two new artificial islands. These comprise steel structures designed for use as drilling platforms in the search for underwater oil. They will supplement the work of an existing platform from which wells have already been drilled during the past year. The aerial ropeway linking the new platforms with the shore will introduce the first large scale application of remote radio control for this form of transport. These facilities, costing some £200,000 for each



**The radio-controlled ropeway for carrying men and materials**

complete platform and ropeway, are to be used for drilling wells into the sea bed, to try to find a submarine extension of Shell's Seria Oilfield, one of the largest single oilfields in the British Commonwealth and now producing 5,000,000 tons of crude oil annually.

The three platforms will be about 3½ miles distant from each other and from each can be drilled four separate wells—one vertical and the other three deviated. In this way, a large area of the underlying formation can be tested without the expense of erecting a separate platform for each well.

Although Shell has previously had experience of underwater drilling — in Lake Maracaibo, Venezuela — the venture in the South China Sea posed a problem that had not previously been encountered. There was, of course, the problem of erecting a platform on the sea bed sufficiently rigid to permit drilling to take place—one that arises in any underwater drilling operation; but, in addition, there was the difficulty of providing access to the platform during the long spells of stormy weather encountered in the South China Sea. The heavy swell experienced in this region for most of the year prevents vessels coming alongside a platform. A solution was found in the construction of an aerial ropeway linking the platform with the shore.

The aerial ropeway in operation on the existing platform embodies a car, travelling on dual track ropes, and incorporating the driving mechanism; this moves the car forwards and backwards along the track ropes by means of fixed haulage ropes. In the ropeway communications to the new platforms, however, a new technique will be used. The driving mechanism will be on shore and it will move the haulage ropes themselves which in turn are reeved through the driver's cab thus moving it at varying speeds in either direction. The driver in the car will operate by remote radio control both the driving mechanism and special lifting winches for carrying equipment. A special car for carrying personnel will be suspended from the driver's cab.

### New Type of Rock Crusher

A new type of rock crusher has increased production considerably and eliminated undesirable flat and elongated particles at the Santa Fe sand and gravel plant of the Blue Diamond Corporation, America. It is a 30 in. by 20 in. double conical machine, known as the Latture Roto-Crusher, and manufactured by the Waldrip Engineering Company, according to a report in *Pit and Quarry*.

The basic principle of the crusher is the use of two mated, corrugated shells (rotors), one convex and the other concave, precisely timed and engineered so that at any setting the space between the shells remains constant. The multiple curved crushing action ensures a cubical product and accounts for the absence of slivers and flat particles in the product. Speed of rotation of the opposed rotors governs the amount of fines produced. In the Blue Diamond installation a high proportion of fines was sought; so the rotors turn at a maximum speed of 140 r.p.m. The constant mesh of the rotors provides positive feed and discharge, the material being forced through the space between the rotors at their peripheral speed, making clogging from wet, sticky feed impossible.

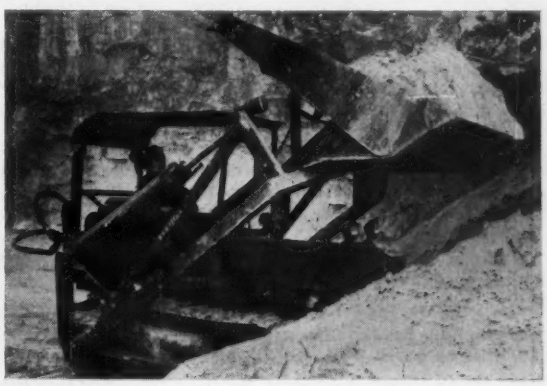
This machine handles a feed of 2½ in. materials and yields a −¾ in. product, at the rate of 100 tons per hour, at the Blue Diamond plant. Regulated to make a product with a high percentage of fines, the crusher was installed adjacent to four smaller reduction machines which had been performing this function; and the feed to all four was cut off and transferred to the new machine.

### Loader for Tractor Use

A new versatile loader for exclusive use with the International BTD-6 and BT-6 tractors is known as the Anthony-Hamilton Loader-Dozer and is being manufactured by Anthony Hoists Ltd. solely for International Harvester. The unit will be marketed at home and overseas by the International Harvester sales organization.

This equipment is mounted at the rear pivot points of the crawler tractor and consists principally of a combination bucket and chute fixed to an A frame. The shovel is loaded by the forward movements of the tractor, after which hydraulic rams lift the bucket over the head of the operator while he is moving back to his unloading point. At the end of this reverse movement the bucket is tripped sharply, discharging its load at the rear. Hydraulic power returns the shovel to the working position as the tractor moves forward to reload.

The bucket has a struck capacity of ¼ cu. yard and the width of 66¼ in. is greater than that of the tractor so that the loader can make its own road, if necessary, through the pile of material. Being crawler mounted, pivot turns are possible, and the combination of these features means that the equipment will manoeuvre in many confined places which are inaccessible to wheel tractors. Similarly the crawler mounting ensures that the outfit can travel sure-footedly in rough terrain and over steep slopes.



**The Anthony-Hamilton loader-dozer built for the International BTD-6**

The Anthony-Hamilton loader-dozer has an advantage in that discharging is effected by a separate automatic tripping action at the end of its rearward movement, and the equipment is expected to have definite applications in industry, being particularly applicable to lime, cement, sand and gravel. It will also usefully replace an excavator on coal face work in opencast operations.

# METALS, MINERALS AND ALLOYS

Political forces are being mobilized in the United States for the mid-term presidential campaign and the President and the Republican National Committee are recruiting an army of Federal officials to participate in the coming struggle, in which the Administration's record will be the principal issue. President Truman has endorsed a generally inflationary programme which will boost Federal spending by not less than $3 billion.

Business sentiment in the United States continues complacent with regard to prospects for this year and it is pointed out that to expect every year to exceed its predecessor is unrealistic. The Congressional primaries will start early in June and attention is particularly focused on the outcome in California with the largest congressional delegation after New York; where the issue should be a straight fight between the Republican and Democrat nominees.

**COPPER.** — The underlying sentiment in the U.S. copper market continues buoyant at 30 c. f.a.s. New York for July shipment. Supplies for early delivery remain tight. Sales for the current month up to May 18 are reported to be in excess of 71,000 s.tons.

In the table below we give the Copper Institute's figures of refined copper production for the first four months of this year, from which it is clear that world production has increased noticeably over the corresponding period a year ago. Stocks, however, have increased to about the same extent, being 405,563 s.tons at the end of April compared with 369,723 at the end of last year.

| | *Production* | | | *Stocks* | | |
|---|---|---|---|---|---|---|
| | *April* 1954 | *Jan.-Apl.* 1954 | *Jan.-Apl.* 1953 | *Apl.* 30 1954 | *Mar.* 31 1954 | *Apl.* 31 1953 |
| U.S.A. | 112,617 | 445,212 | 435,346 | 124,523 | 125,759 | 48,382 |
| Other countries* | 87,747 | 337,535 | 391,157 | 273,070 | 279,804 | 146,974 |
| World | 200,364 | 782,747 | 826,503 | 397,593 | 405,563 | 195,356 |

* Excluding U.S.S.R., Japan, Australia, Norway, Sweden and Yugoslavia.

Speaking in Salisbury this week Sir Roy Welensky forecast that once the full power requirements of the Copperbelt have been met, and additional mines have come into production—within the next three years or so — the output potential of Northern Rhodesia would be about 450,000 tons of copper and 1,500 s.tons of cobalt per annum. Sir Roy added that he was confident that there was ample copper in Northern Rhodesia to last for the next fifty years and that a lot more would be found. He expressed himself as equally confident regarding the long term outlook for the demand for copper.

**LEAD.**—A steady if moderate demand for lead has continued in the United States and supply and demand appear to be approximately in balance. Output from U.S. domestic mines for the first quarter of the year is given by the Bureau of Mines as 81,288 s.tons against 91,407 in the same period of last year. Imports for the first quarter were only 51,802 s.tons as compared with 120,157 s.tons for the same period of last year. The decline is particularly pronounced in Mexican lead of which a greater proportion went to Europe. Shipments from Australia, Yugoslavia and Peru also declined substantially.

Stockpile hearings in the House of Representatives, both for lead and zinc, have been postponed till the week-end.

**TIN.**—The tin market is without feature this week and has generally been steady with a slightly downward tendency. The U.S. price on Tuesday was 93.75 c. per lb.

Mr. Gripper, Chief Inspector of Mines for Malaya, is reported as saying that the largest prospecting operation now in progress was in the Kroh Forest Reserve in Perak under government armed protection. He has also revealed that more than 10 per cent of Malaya's tin dredges are now closed down because they have worked out the ground on which they are sited while several more dredges were expected to close down in the next few years as they have no prospect of securing further areas to work. "The whole matter of prospecting," he said, "is tied up with the emergency and we are always reviewing and considering the question of prospecting and providing armed protection for prospectors."

Sir Ewen Fergusson, in his speech reported in another column, spoke favourably of the prospects of a new mine which his company is opening in Siam.

It has been stated in the *Financial Times* this week that India is expected shortly to sign the International Tin Agreement as a consumer signatory. India may be regarded as industrially fairly neutral in this matter and her decision is consequently being interpreted principally as a political one based on the desirability of ensuring a stable tin industry in South-East Asia.

The question of what is to be done with the Texas Smelter has now reached something like an impasse. The Administration's Bill to close down the plant and either sell or lease it to private interests seems to have been approved by the House of Representatives. On the other hand Senator Johnson of Texas is making a strong fight to maintain government operation of the smelter, mainly it would seem for the benefit of the state he represents. It is said that there are only enough raw materials to keep the smelter in operation till about the end of the month, and unless the Administration contracts for more concentrates the smelter will be bound to close down. The Bolivian ambassador in Washington, Señor Andrade, has been strongly urging the continued operations of the smelter pointing out that commercial plants elsewhere will not want the low grade portion of the Bolivian production and that two or three high cost small mines which have not been nationalized would in that case have to be closed down which might result in the loss of several thousand tons output annually. The president of the Bolivian Mining Corporation, Señor Jorge Krammer, has left La Paz for Washington in the hope of negotiating a new tin treaty; with the result that compensation negotiations over the Patiño mines has again been postponed.

The following are the latest available Tin Study Group output figures for the leading producing countries:

| *Country* | *Period* | *1954* | *1953* |
|---|---|---|---|
| Belgian Congo | Jan.-April | 2,919 | 4,403 |
| Bolivia* | Jan. only | 2,268 | 1,470 |
| Indonesia | Jan.-April | 10,298 | 9,690 |
| Malaya | Jan.-March | 14,362 | 14,048 |
| Nigeria | Jan.-March | 2,037 | 2,365 |
| Thailand | Jan.-Feb. | 1,700 | 1,774 |

* Exports

**ZINC.**—The United States demand continued moderate and May shipments are expected to be somewhat smaller. U.S. domestic mine output during the first three months of this year totalled 117,500 s.tons compared with 154,000 s.tons in the corresponding period a year ago. U.S. imports in the first quarter of the year are reported as 147,432 s.tons against 174,497 s.tons a year ago. Imports in March however were exceptionally high and this coming on top of smelter stocks estimated at around 200,000 s.tons was considered disturbing.

Norway has protested to the O.E.E.C. regarding cut price dumping of zinc by West German and Belgian producers. The complaint appears to be primarily concerned with exports of West German zinc at prices as much as 40 per cent below Norwegian producers' cost price. The protest is based on the contention that these low prices are only possible because of disguised subsidies in the form of repayments of certain basic costs and social and other taxes.

**ASBESTOS.**—The Philadelphia organ *Asbestos* says that the seasonal improvement in deliveries of fibre are increasing rapidly with the opening of the St. Lawrence ports. All grades appear to be in ample supply with spinning fibre equal to the current demand and a potential output capable of increase. The demand for shorter grades has picked up.

**CHROMITE.**—It is reported from Ankara that the Government has made important reductions in the price at which it originally allowed chromite to be sold abroad, but actual quotations are not so far available. Recent bids from chromite at $38.50 per ton f.o.b. were not acceptable to the government. The Turkish chrome committee not long ago discussed regulations to help exports and the price reduction now foreshadowed appears to be the outcome.

**QUICKSILVER.**—The quicksilver famine due to the U.S. Government cornering the market has caused a further rise in the U.S. nominal price of quicksilver to $260 per flask from $235-238. The London price is currently £85-87 10s.

**TUNGSTEN.**—The position is discussed elsewhere in this issue under " Notes and Comments."

**URANIUM.**—The Premier of Sweden, Hr. Erlander, told the Swedish parliament early in the week that the country was estimated to contain 4,700,000,000 tons of shale deposits and assuming that one-third of this quantity was available, this represented a reserve of 150,000 tons of uranium. This would constitute the greatest energy reserve in the country and would supply Sweden's present consumption of energy for several thousand years.

The South African cabinet has partially lifted the ban on information about uranium including the value of exports; its destination, however, would not be disclosed.

**SILVER.** — It is understood that substantial quantities of Russian silver have been received in London recently. According to some estimates these amounted to around 3,000,000 oz. These supplies are welcomed as they do not involve payment in dollars. U.S. output for the first quarter of the year is given by the Bureau of Mines as 9,218,841 f.oz. compared with 9,211,929 for the same period last year.

## Iron and Steel

The strength of sterling, the cut in the Bank rate and the general movement towards greater freedom in international trade are amongst the imponderables which have contributed towards a more cheerful atmosphere in the steel industry. Possibly the record breaking outputs achieved in April will not be equalled until the autumn. The holiday period is approaching and with it a probable decline in production. But no fears of redundancy are entertained. Rapid progress is being made with new construction and there is no indication of any slackening in the flow of specifications from home consumers.

Still more encouraging is the receipt of a few more export orders. The improvement is only relative and does not apply to all sections of the industry. The light castings trade for example is still depressed, but some useful export orders for plates have been booked at a premium on the fixed home price. Many overseas contracts for the supply of black and galvanized sheets in Period III only await the issue of the export quotas, and best of all re-rollers of bars and light sections have at last been able to negotiate a few sales to foreign buyers. Little or no business of this description has recently been possible owing to the cut prices quoted by European exporters, but it would appear that this gap has since been narrowed and a revival in the re-rolling industry is fervently hoped for.

Comparisons between British quotations for open hearth steel and Continental prices for the cheaper Bessemer steel are somewhat misleading, but the reluctance of the British authorities to sanction any increase which might jeopardize the expansion of direct steel exports and also the still larger volume of end products is perfectly intelligible. Unfortunately the rise in coal and coke prices has increased the inflationary pressure. In some areas foundry coke has been advanced by as much as 12s. 6d. per ton and it is said to be inevitable that high prices for iron castings, as well as for pig iron and steel must ensue. A pronouncement by the Iron and Steel Board on this subject is still awaited but it cannot be delayed much longer and in the meantime many users are only buying from hand to mouth.

## The London Metal Market

*(From Our Metal Exchange Correspondent)*

The last week has been one of the quietest on the Metal Exchange since dealings in all four metals recommenced, and price changes have been negligible.

It is not altogether surprising that dealers are unable to make up their minds on the probable trend of prices over the next three months. On the one hand the technical positions of the markets indicate that a fall in prices is probable, as the backwardations for tin and zinc have almost disappeared whilst those for lead and copper have lessened considerably. On the other hand the developments in the political situation are shrouded in mystery, and, purely in the metal field, consumption is running at a consistently good rate and production shows signs of diminishing, subsequent upon the cuts made following the low prices a year ago. There is no doubt that any major developments in politics or industry will result in a very sharp movement in prices, as there are practically no available stocks to act as a brake to an upward movement, whilst a movement in the other direction is unlikely to be stemmed in the early stages as there cannot be any appreciable short position on the market or with consumers.

In America the scrap position seems to be easing somewhat, but, with increasing talk about the recession being over, the lack of export orders may be counterbalanced by increased domestic demand. It seems likely that the Bill continuing the suspension of the copper duty will be passed without opposition, and a pronouncement on the stockpiling policy is expected in the near future, the contents of which must have a marked effect on the outlook for lead and zinc in particular. The arguments on the future of the Texas smelter continue.

On Thursday morning the Eastern price for tin was equivalent to £735⅞ per ton c.i.f. Europe.

Closing prices and turnovers are given in the following table:

| | May 13 | | May 20 | |
|---|---|---|---|---|
| | *Buyers* | *Sellers* | *Buyers* | *Sellers* |
| **Tin** | | | | |
| Cash | £727½ | £728 | £724 | £725 |
| Three months | £727 | £727½ | £724 | £725 |
| Settlement | £728 | | £725 | |
| Week's turnover | 800 tons | | 515 tons | |
| **Lead** | | | | |
| Current month | £94¼ | £95 | £94¼ | £94¾ |
| Three months | £92¼ | £93¼ | £93¼ | £93¾ |
| Week's turnover | 1,725 tons | | 3,275 tons | |
| **Zinc** | | | | |
| Current month | £79¼ | £79¾ | £78¾ | £79 |
| Three months | £79 | £79¼ | £78¾ | £79 |
| Week's turnover | 3,550 tons | | 4,150 tons | |
| **Copper** | | | | |
| Cash | £242 | £242¼ | £239¼ | £239¾ |
| Three months | £238 | £238¼ | £236 | £236¼ |
| Settlement | £242¼ | | £239¾ | |
| Week's turnover | 4,700 tons | | 3,875 tons | |

### OTHER LONDON PRICES — MAY 20

#### ANTIMONY

English (99%) delivered, 10 cwt. and over .. .. £210 per ton
Crude (70%) .. .. .. £200 per ton
Ore (60% basis) .. .. .. 22s./24s. nom. per unit, c.i.f.

#### NICKEL

99.5% (home trade) .. .. £483 per ton

#### OTHER METALS

Aluminium, 99.5%, £156 per ton
Bismuth (min. 4 cwt. lots) 16s. lb.
Cadmium (Empire), 13s. lb.
Chromium, 6s. 5d./7s. 6d. lb.
Cobalt, 20s. lb.
Gold, 248s. 9½d. f.oz.
Iridium, £52 10s. oz. nom.
Magnesium, 2s. 6d. lb.
Manganese Metal (96%-98%) £230/£262
Osmiridium, £40 oz. nom.
Osmium, £50 oz. nom.
Palladium, £7 10s. oz.
Platinum, £30/£31
Rhodium, £43 10s. oz.
Ruthenium, £23 oz.
Quicksilver, £87 10s. ex-warehouse
Selenium, 35s. 9d. nom. per lb.
Silver 72¼d. f.oz. spot and 72⅝d. f'd.
Tellurium, 15s./16s. lb.

#### ORES, ALLOYS, ETC.

Bismuth .. .. .. .. 50% 7s. 3d. lb. c.i.f.
40% 6s. 3d. lb. c.i.f.
Chrome Ore—
Rhodesian Metallurgical (lumpy) £13 12s. per ton c.i.f.
" Refractory £13 4s. per ton c.i.f.
Magnesite, ground calcined .. £26-£27 d/d
Magnesite, Raw .. .. .. £10 - £11 d/d
Molybdenite (85% basis) .. 102s. 4d.-103s. per unit c.i.f.
Wolfram (65%)* .. .. .. World buying 170s.-180s.
" " .. .. .. 195s. U.K. Selling inc. charges
Scheelite (65%)* .. .. .. World buying price nom.
" " .. .. .. 195s. U.K. Selling inc. charges
Tungsten Metal Powder (98% Min. W.) .. .. 16s. 9d. nom. per lb. (home)
Ferro-tungsten .. .. .. 13s. 9d. nom. per lb. (home)
Carbide, 4-cwt. lots .. .. £35 13s. 9d. d/d per ton
Ferro-manganese, home .. .. £54 15s. 0d. per ton
Manganese Ore Indian c.i.f. Europe (46%-48%) .. .. .. 6s. 8d. per unit
Brass Wire .. .. .. .. 2s. 6¾d. per lb. basis
Brass Tubes, solid drawn .. 1s. 11¼d. per lb. basis

* Ex Ministry stock for prompt delivery as from May 21

# THE MINING MARKETS

Although stock markets ended last week on a cheerful note the initial follow through at the beginning of this week was heavy and tending dull owing to a combination of at least three influences; the bout of profit taking by speculators attracted to the market by the reduction in the bank rate; the end of the account; and the terms of the Hull loan together with the prospect of continued borrowings. Thus the market was quieter than it had been for some time. Nevertheless, Wednesday saw a general return to form and renewed confidence in gilts which coincided with the opening of the three-week account covering the Whitsun holiday.

By way of contrast the Kaffir market, which closed dull at the end of last week, was a consistently active market. Indeed, end of account influences showed no visible effect on this section which continued to go from strength to strength from the last account to the opening of the new three-week account. The chief feature, perhaps, has been the rise of both St. Helena and President Brand on continued talk of a good borehole result obtained in drilling near the St. Helena-President Brand boundary. Reports from Johannesburg put the result in the four figure in.-dwt. value bracket. This was not the only factor in the advance of President Brand as good development rumours are playing their part and as we go to press the shares are at a new high level. Development rumours were also behind much of the improvement of Free State Geduld, and Western Holdings. Elsewhere, Stilfontein, Klerksdorp Consol., Dominion Reefs, Vaal Reefs and Randfontein were all good counters and showed gains.

In finance shares, Central Mining continued their merited advance, while Anglo American showed a useful rise. De Beers reached a new peak on the good impression created by the annual report and accounts accompanied, for the first time, by a statement from Sir Ernest Oppenheimer. Sir Ernest, in recalling that sales of gem diamonds in 1953 were perceptibly lower than in 1952, stressed that the smaller turnover was not due to although end of account profit-taking caused a reaction from any slackening in demand but rather to the non-availability of diamonds for sale. Indeed, gem stocks in the hands of producers and the Diamond Corporation were now at an " irreducible minimum " so that future gem sales would depend entirely on the current level of output.

Coppers were a good market. In fact, this section was outstanding and persistent rises throughout the week hoisted Nchanga, " Rhoanglo," Rhokana, and Bancroft to their highest level this year. The market came under several favourable influences. The Rhodesian Selection Trust and Mufulira interims pleased, as did the interim from Roan and the higher dividend payment announced by Union Minière. Rhodesia Katanga went better, while the higher payment from Union Minière noticeably stimulated " Tanks " and " Zams."

Other base metal issues were hardly tested, but San Francisco Mines of Mexico declined following the chairman's statement earlier this week. On the other hand, Consolidated Murchison, which announced good profit figures for the March quarter, improved sharply due to the latest increase in the U.S. antimony price.

Until Wednesday of last week oils were mainly dull but in mid-week there was a substantial volume of business in this section and several gains were recorded. In particular Anglo Iranian rose to a new all time peak of over £12, demand encouraged by the favourable pointers in the full report and accounts. Burmahs, which had, in any event, been moving against the trend earlier in the week, closed strong. Ultramars came in for a good deal of attention and on a market short of shares the price was marked up sharply.

In the miscellaneous section Turner and Newall were active, previous high levels. Results of Associated Manganese Mines of South Africa for 1953 were eminently satisfying and as previously announced the dividend has been raised to the 1950 post-war peak level of 170 per cent. This distribution being paid from a revenue balance increased from £1,045,667 to £1,323,050.

| | Price May 19 | + or — on week |
|---|---|---|
| **FINANCE** | | |
| African & European | 2½XR | ..... |
| Anglo American Corpn. | 6 | + |
| Anglo-French | 19/6 | ..... |
| Anglo Transvaal Consol. | 21/3 | ..... |
| Central Mining (£1 shrs.) | 31/9 | +2/9 |
| Consolidated Goldfields | 47/6 | —3d |
| Consol. Mines Selection | 29/4½ | +1/3 |
| East Rand Consols | 3/- | ..... |
| General Mining | 3⅜ | + |
| H.E. Prop | 38/9 | +1/10½ |
| Henderson's Transvaal | 7/6 | ..... |
| Johnnies | 42/9 | —4½d |
| Rand Mines | 3 | + |
| Rand Selection | 32/6 | +7½d |
| Strathmore Consol. | 30/- | ..... |
| Union Corp. (2/6 units) | 28/3 | +1/3 |
| Vereeniging Estates | 4 | ..... |
| Writs | 34/4½ | —1½d |
| West Wits | 40/7½ | ..... |
| **RAND GOLD** | | |
| Blyvoors | 35/9 | +3d |
| Brakpan | 8/7½ | —4½d |
| City Deep | 15/7½ | —1½d |
| Consol. Main Reef | 18/- | +6d |
| Crown | 38/9 | ..... |
| Daggas | 3½ | — |
| Doornfontein | 23/6 | —9d |
| Durban Deep | 32/6 | —2/6 |
| E. Daggas | 12/- | —3d |
| E. Geduld .. (4/- units) | 27/6 | ..... |
| E. Rand Props | 2⅜ | ..... |
| Geduld | 3½ | + |
| Govt. Areas | 11/6 | ..... |
| Grootvlei | 20/- | +6d |
| Libanon | 10/3 | ..... |
| Luipaards Vlei | 20/6 | —6d |
| Marievale | 18/3 | +6d |
| Modderfontein East | 15/- | ..... |
| New Kleinfontein | 14/- | —1/- |
| New Pioneer | 13/- | —6d |
| Randfontein | 60/6 | —1/- |
| Robinson Deep | 15/- | ..... |
| Rose Deep | 14/3 | —3d |
| Simmer & Jack | 4/- | ..... |
| S.A. Lands | 20/7½ | ..... |
| Springs | 3/10½ | —1½d |
| Stilfontein | 26/6 | ..... |
| Sub Nigel | 39/4½ | ..... |
| Van Dyk | 4/- | —6d |
| Ventersdorp | 12/3 | ..... |
| Vlakfontein | 14/6 | —1/- |
| Vogelstruisbult | 32/3 | —9d |
| West Driefontein | 5 | + |
| W. Rand Consolidated | 49/4½ | —7½d |
| Western Reefs | 48/1½ | —2/6 |
| **O.F.S.** | | |
| Freddies | 5/10½ | —1½d |
| Freddies N. | 6/6 | —4½d |
| Freddies S. | 6/6 | —4½d |
| F. S. Geduld | 4 | + |
| Geoffries | 13/- | —4½d |
| Harmony | 31/4½ | +1/- |
| Loraine | 10/6 | —4½d |
| Lydenburg Estates | 16/6 | +1/- |
| Merriespruit | 11/6 | ..... |
| Middle Wits | 13/- | —1½d |
| Ofsits | 48/9 | +3d |
| President Brand | 61/- | +6/- |
| President Steyn | 30/9 | +9d |
| St. Helena | 25/- | +2/6 |
| Virginia Ord. | 13/10½ | +10½d |
| Welkom | 18/9 | +3d |
| Western Holdings | 3 | — |
| **WEST AFRICAN GOLD** | | |
| Amalgamated Banket | 1/4½ | —3d |
| Ariston | 5/7½ | ..... |
| Ashanti | 20/4½ | ..... |
| Bibiani | 4/6 | ..... |
| Bremang | 1/10½ | ..... |
| G.C. Main Reef | 3/3 | ..... |
| G.C. Selection Trust | 6/6 | +1½d |
| Konongo | 2/6 | ..... |
| Lyndhurst Deep | 10½d | ..... |
| Marlu | 1/1½ | ..... |
| Taquah & Abosso | 2/4½ | ..... |
| **AUSTRALIAN GOLD** | | |
| Boulder Perseverance | 2/6 | —3d |
| Gold Mines of Kalgoorlie | 13/4½ | +1½d |
| Great Boulder Prop. | 8/1½ | —1½d |
| Lake View and Star | 14/4½ | +7½d |
| Mount Morgan | 18/3 | +6d |
| North Kalgurli | 6/10½ | —1½d |
| Sons of Gwalia | 4/9 | —3d |
| South Kalgurli | 6/6 | ..... |
| Western Mining | 11/3 | —1½d |
| **MISCELLANEOUS GOLD** | | |
| Cam and Motor | 8/10½ | +1½d |
| Champion Reef | 4/9 | +1½d |
| Falcon Mines | 7/4½ | ..... |
| Globe & Phoenix | 21/6 | ..... |
| G.F. Rhodesian | 5/4½ | +1½d |
| London & Rhodesian | 4/3 | +1½d |
| Motapa | 1/7½ | ..... |
| Mysore | 5/4½ | —1½d |
| Nundydroog | 6/- | +4½d |
| Ooregum | 3/6 | +3d |
| Oroville | 17/6 | ..... |
| **MISCELLANEOUS GOLD (contd.)** | | |
| St. John d'El Rey | 18/-XD | —3d |
| Zams | 35/9 | —3d |
| **DIAMONDS & PLATINUM** | | |
| Anglo American Inv. | 5 | + |
| Casts | 24/- | +6d |
| Cons. Diam. of S.W.A. | 5½ | + |
| De Beers Defd. Bearer | 89/4½ | +6/4½ |
| De Beers Pfd. Bearer | 16¾ | + |
| Pots Platinum | 8/6 | +1½d |
| Watervaal | 13/3 | +3d |
| **COPPER** | | |
| Chartered | 73/9 | +9d |
| Esperanza | 6/4½ | —1½d |
| Indian Copper | 4/4½ | —1½d |
| Messina | 4 XD | + |
| Nchanga | 7 | + |
| Rhod. Anglo-American | 57/- | +3/3 |
| Rhod. Katanga | 11/6 | ..... |
| Rhodesian Selection | 16/9 | +4½d |
| Rhokana | 21½ | + |
| Rio Tinto | 21XD | —1½ |
| Roan Antelope | 17/4½ | +6d |
| Selection Trust | 31/- | +6d |
| Tanks | 80/- | —6d |
| Tharsis Sulphur Br. | 48/9 | ..... |
| **TIN (Eastern)** | | |
| Ayer Hitam | 26/- | +9d |
| Gopeng | 9/3 | +1/1½ |
| Hongkong | 6/4½ | —4½d |
| Ipoh | 15/6 | —3d |
| Kamunting | 8/3 | +3d |
| Kepong Dredging | 4/- | —6d |
| Kinta Tin Mines | 10/4½ | ..... |
| Malayan Dredging | 26/6 | +3d |
| Pahang | 11/3 | +3d |
| Pengkalen | 8/6 | +1½d |
| Petaling | 7/10½ | ..... |
| Rambutan | 14/6 | —6d |
| Siamese Tin | 7/4½ | +1½d |
| Southern Kinta | 15/10½ | +1½d |
| S. Malayan | 24/3 | —3d |
| S. Tronoh | 10/4½ | —1½d |
| Sungei Kinta | 11/10½ | ..... |
| Tekka Taiping | 6/3 | +3d |
| Tronoh | 23/- | ..... |
| **TIN (Nigerian and Miscellaneous)** | | |
| Amalgamated Tin | 14/3 | +1½d |
| Beralt Tin | 22/6 | ..... |
| Bisichi | 5/10½ | +1½d |
| British Tin Inv. | 14/9 | +1½d |
| Ex-Lands Nigeria | 3/6 | +1½d |
| **TIN (Nigerian and Miscellaneous) contd.** | | |
| Geevor Tin | 12/1½ | +3d |
| Gold & Base Metal | 3/3 | ..... |
| Jantar Nigeria | 8/9 | ..... |
| Jos Tin Area | 13/6 | ..... |
| Kaduna Prospectors | 2/6 | ..... |
| Kaduna Syndicate | 2/6 | ..... |
| London Tin | 6/-XD | —4½d |
| United Tin | 3/3 | ..... |
| **SILVER, LEAD, ZINC** | | |
| Broken Hill South | 47/6 | +9d |
| Burma Mines | 2/3 | ..... |
| Consol. Zinc | 31/-XD | —3d |
| Lake George | 7/- | ..... |
| Mount Isa | 40/- | +1/- |
| New Broken Hill | 23/6XD | ..... |
| North Broken Hill | 2½ | — |
| Rhodesian Broken Hill | 11/1½ | ..... |
| San Francisco Mines | 16/3 | —3d |
| Uruwira | 3/7½ | —1½d |
| **MISCELLANEOUS BASE METALS & COAL** | | |
| Amal. Collieries of S.A. | 44/- | +3d |
| Associated Manganese | 51/3 | +3d |
| Cape Asbestos | 25/- | —1/3 |
| C.P. Manganese | 62/- | +3d |
| Consol. Murchison | 39/3 | ..... |
| Mashaba | 4½d | ..... |
| Natal Navigation | 3 | + |
| Rhod. Monteleo | 1/9 | ..... |
| Turner & Newall | 84/3 | +1/- |
| Wankie | 13/6 | ..... |
| Witbank Colliery | 3 | ..... |
| **CANADIAN MINES** | | |
| Dome | $29½ | ..... |
| Hollinger | $28 | + |
| Hudson Bay Mining | $83 | +2d |
| International Nickel | $75 | +3½ |
| MiningCorpn. of Canada | £4½ | + |
| Noranda | $123 | —1d |
| Quemont | £6½ | ..... |
| Yukon | 3/9 | —3d |
| **OIL** | | |
| Anglo-Iranian | 11 | + |
| Apex | 49/4½ | ..... |
| Attock | 45/- | +1/10½ |
| Burmah | 80/7½ XD | ..... |
| Canadian Eagle | 34/3 | +1/9 |
| Mexican Eagle | 18/-XD | —4½d |
| Shell (bearer) | 6½ | ..... |
| Trinidad Leasehold | 24/9XD | +9d |
| T.P.D. | 26/3 | +1/- |
| Ultramar | 30/3 | +1/6 |

# COMPANY NEWS AND VIEWS

## De Beers' Excellent Report

Diamond sales of De Beers Consolidated Mines Ltd. for the year to December 31, 1953, at £61,155,941 were only £8,505,985 short of the record level of £69,661,926 achieved during 1952. Earnings of this magnitude during a time of slackening business activity in the American economy make good reading, especially when coupled with the announcement that the fall in diamond sales during 1953 were not due to lack of demand but to a shortage of stones available for sale.

| *Year to Dec. 31* | *Diamond Account* | *Interest & Dividends* | *Other Income* | *Earned for Divs.* | *Paid* | *Carry Forward* |
|---|---|---|---|---|---|---|
| | £(000) | £(000) | £(000) | £(000) | £(000) | £(000) |
| 1953 | 26,159.4 | 4,598.0 | 629.0 | 16,754.8 | 8,964.0 | 20,193.2 |
| 1952 | 28,584.2 | 3,848.4 | 999.7 | 23,321.6 | 8,964.0 | 17,136.4 |

After servicing the £2,000,000 Preference shares of £2 10s., 200 per cent was again paid on the £4,082,184 shares of 5s.

Consolidated balance sheet figures of the parent and its subsidiaries are published with the report and accounts and include: De Beers' Consolidated Mines Ltd., Consolidated Diamond Mines of South West Africa, Premier (Transvaal) Diamond Mining Co., The Diamond Corporation, De Beers' Investment Trust, De Beers' Industrial Corporation and New Jagersfontein Mining and Exploration Co. These figures show a satisfactory degree of liquidity with net liquid assets (including £12,000,000 of investments at market value and diamonds on hand), amounting to over £31,000,000. Of these net liquid assets, cash and the Government securities represented over £9,000,000.

Although primarily concerned with the diamond trade, De Beers has in recent years extended its investments to other industries. These include a holding of over 71 per cent in De Beers Industrial Corporation, whose principal assets is a 50 per cent holding in African Explosives and Chemicals Ltd., and its direct and indirect interest of about 60 per cent in De Beers Investment Trust which was formed in 1952. The interest of De Beers Investment Trust are primarily made up of loans to O.F.S. and West Rand gold mines which carry valuable conversion rights. The market value of De Beers Investment Trust Securities at March 31, 1954, showed an appreciation of no less than £3,750,000 over cost.

The current outlook for De Beers depends, as always, on the state of business in the U.S.A. and although recently, markets for diamonds in other countries have shown a welcome development, this cannot yet materially affect the position. Constant warning of a serious recession in the U.S.A., which wolud cause a slump in the diamond trade, did not eventuate last year although a fairly large "re-adjustment" did take place. In spite of this, diamond sales for 1953 show that no serious fall was precipitated and what decline did take place was due to inability to supply rather than to falling off in diamonds. Indeed, the shape of the current year's sales curve will be conditioned very largely by production, as stocks now stand at an "irreducible minimum."

It is, in fact, expected that total sales of both gem and industrial stones will be lower during this year than last, although sales in respect of the latter were artificially enhanced during the first quarter of the year due to unexpected stockpiling.

At a market price of 85s., however, De Beers deferred shares stand at an all time high to yield just over 11½ per cent. This is a low return for these shares but would appear to be discounting any future rise in distribution which is by no means impossible.

## General Mining's Widespread Investments

Group revenue of General Mining and Finance Corporation for the year 1953, at £1,105,705, showed a sharp expansion over the £685,693 earned in 1952. This was due alike to greater opportunities for share dealing and to increased dividend income. Figures from the group accounts are shown in comparative form below.

| *Year to Dec. 31* | *Total Revenue Divs., etc.* | *Share Dealing* | *Net Profit* | *Dividends* | *To Reserve* | *Carry Forward* |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| 1953 | 935,136 | 170,569 | 933,331 | 488,052 | 179,275 | 198,444 |
| 1952 | 685,693* | N/A | 596,839 | 419,321 | 24,581 | 188,205 |

* Inclusive of other revenue.

After service of the £998,164 preference capital, a final of 15 per cent was recommended on the issued ordinary capital of £1,952,134 in shares of £1, making a total of 25 per cent for the eighteenth successive year. This payment was made despite the fact that both preference and ordinary capital of the Corporation were increased during the year by issues against new acquisitions.

Group balance sheet figures disclose that current assets were in excess of current liabilities by £921,018 and an amount of £2,108,324 was held in cash. Quoted stocks and shares and other government and municipal securities shown at £5,505.856 had a market value at December 31, 1953, of £9,577,117.

While West Rand Consolidated and South Roodepoort Main Reef Co. come directly under the Corporation's administration, a large portfolio of quoted and unquoted securities extend gold mining interests to cover a wide field including excellent investments on the Rand, in the O.F.S., and along the West Wits Line. During the past year holdings in the O.F.S. were further increased by additions to the portfolio of shares in Harmony Gold and Free State Geduld Mines. The Corporation also has an important interest in General Exploration Orange Free State. During the year, however, "Geoffries," while maintaining its O.F.S. interests, which include both freehold titles and mineral rights, carried out no new prospecting work.

Apart from these important gold mining interests the Corporation's unquoted investments, together with the numerous subsidiaries is evidence of further activities covering widespread interests in many sections of industry.

Last year the Corporation acquired against cash and share issues, two further companies which have become subsidiaries, these were: Consolidated Rand Investment and Trust Co. ("Crits") and Transvaal Mining and Finance Co. ("Trams"). These two companies have important gold mining and other interests and are a welcome addition to the Corporation's strong portfolio of investments.

At a current market price of around 72s. 6d., a yield of just under 7 per cent can be obtained on the shares of this old established investment company. This return, while not overgenerous, reflects the strength and future prospects of the broadly based investments of the Corporation.

## "Ofsits'" Increased Value of Portfolio

The total revenue of the Orange Free State Investment Trust Ltd. for the year ended December 31, 1953, from investments and other resources was boosted considerably above last year's figure by profits from share dealing activities. Compared with the previous year's total revenue of £304,259, the total earned during 1953 of £406,781 shows a substantial advance. This revenue was made up of £219,106 from share dealing, and £187,675 from investment income, interest and other sources. After deduction of interest charges and general expenses an amount of £98,333 against £54,550 for the preceding year remained to be appropriated. After taxation, however, the larger amount of £59,055 compared with £14,027 for the preceding year was carried forward. The market value of the company's quoted investments as at December 31, 1953, stood at £26,492,699 and showed a marked increase over last year's figure of £20,724,438. Book values of these securities have also increased in value and stood at £14,838,248 compared with £12,945,532 previously.

A review of the rapid strides which have been made in the Orange Free State Goldfield is given by Sir Ernest Oppenheimer in his statement to shareholders. He points out that at the end of 1952 only two mines in this area were in production; since then four more have reached this stage and three new mines: Harmony, Virginia, and President Brand Gold Mining Companies, are expected to be producing by the end of 1954. This brings the total number of producers to nine out of the thirteen O.F.S. Developing Properties. Sir Ernest also disclosed that underground reef development had been started at the Jeanette Mine.

This important new goldfield has, however, not been opened up without the investment of large sums of capital. This is estimated at about £130,000,000 plus a further £15,000,000 for the provision of necessary housing facilities. Of this enormous sum the Anglo American Corporation group and its associates have supplied nearly £80,000,000.

Periodic accounts of steady progress in the Orange Free State brings the time nearer when it will be possible to assess the value of "Ofsits" from a dividend paying standpoint. Undoubtedly, however, substantial amounts of capital will still be required for the full development of the field and it is to be

expected that the company will be one of those who will provide it. This may mean that, apart from the funds which will be received should all outstanding conversion rights be exercised, it may be necessary for the company to raise more capital in the future. If, however, this can be achieved on the same convertible-redeemable basis as before, the issued capital need not become unduly large and the advantage will also have been gained that future dividends will not permanently be preceded by prior charges.

### Writ's Strong Investment Portfolio

Profits from share dealing considerably boosted the revenue earned by West Rand Investment Trust during the year to December 31, 1953, and total revenue for the year amounted to £1,002,914 compared with £726,339 previously.

The total dividend distribution for the year was increased by 1½d. to 1s. 6d. per 10s. share.

| *Year To* | *Investment Income* £ | *Share Dealing* £ | *Net Profit* £ | *Dividend* £ | *To Reserve* £ | *Carry Forward* £ |
|---|---|---|---|---|---|---|
| 1953 | 744,411 | 258,503 | 771,837 | 624,935 | 250,000 | 201,480 |
| 1952 | 726,339* | N/A | 514,095 | 572,858 | NIL | 304,578 |

* Including share-dealing.

Since its formation in 1937 this company has made a great contribution towards financing the mines of the West Wits line and it is for this reason that its shareholdings are now predominantly in these companies. It is not surprising, therefore, that the company's portfolio is exceptionally strong, containing as it does large holdings in the rich producers of this area. These holdings include 2,585,924 Blyvooruitzicht shares, 1,000,000 in Doornfontein and 1,000,067 in West Driefontein; and in addition substantial shareholdings have been taken in the other two West Wits mines, Libanon and Venterspost. The total quoted investments are shown on the balance sheet at £7,985,632 and these had a market value as at December 31, 1953, of £17,740,365.

Last week it was announced that the Union Bank of Switzerland had provisionally agreed to lend the company £2,000,000 at 4½ per cent p.a. carrying certain conversion rights until July 31, 1962, into Writs shares. Half of the loan, that is £1,000,000, will be utilized in repaying a loan from the Anglo American Corporation, the remainder being earmarked for following up the company's West Rand and Klerksdorp interests. It will be recalled that last March a loan of £3,000,000 together with the option to take up 1,000,000 Writs shares at 40s. per share was taken over from De Beers Consolidated Mines Ltd. by the Anglo American Corporation. On completion of this transaction the Anglo American Corporation exercised their option, thus raising the issue of ordinary capital of Writs to £4,666,235.

The outlook for this company with its exceptionally strong investment portfolio is undoubtedly bright but the prospects of steadily increasing prosperity are to some extent discounted by the present market price of around 34s. 6d. at which price the yield is under 4½ per cent. Nevertheless, there is ample scope for capital appreciation in the future and, as a lock-up, these shares have their attractions.

Meeting, Johannesburg, June 4. Sir E. Oppenheimer is chairman.

### E.R.C.—Sharp Rise in Profits

Large profits from sales of investments and increased revenue from dividends and interest were responsible for hoisting revenue of East Rand Consolidated Ltd., for the year to December 31, 1953, to a level nearly double that earned in the previous year. But mining operations resulted in a loss of £10,252 against £3,689 previously, and after depreciation, expenses and tax, etc., only £25,013 remained for appropriation. Nevertheless, this compared very favourably with the figure of £9,015 for the preceding year.

All but £54 of the year's net profit of £25,013 was applied to writing off investment losses, abandoned O.F.S. options and prospecting contracts, and after the addition of £5,361—a loss applicable to minority interests—the debit balance carried forward was reduced to £788,493 (£793,908). No dividend, therefore, could be recommended.

Consolidated balance sheet figures showed quoted investments at a figure of £491,658 having a market value as at December 31, 1953, of £493,054. In the Director's Report, however, it is stated that this valuation had increased substantially to approximately £560,594 by May 14, 1954, against a book cost of £523,702. Current assets exceeded current liabilities by £74,326 and of this £21,170 was in cash. The shareholders' account discloses that of the £1,500,000 capital only £961,000 remains after losses of recent years, and it is presumably on the break-up basis of this figure that the shares now stand at around 3s.

Although it is not possible to see far into the future, the year's successful operations are a great credit to the company and reflect that the objective to build up a portfolio of regular dividend payers is being kept very much in mind. But, at the indicated rate of profits it is difficult to anticipate when dividends might be paid unless a reconstruction is undertaken. This would involve writing down the present capital and recommencing dividends rather than making good past losses by appropriations of future profits. Until such a scheme can be implemented no great improvement in the share price may immediately be expected.

Meeting June 28, London. The chairman is Major General W. W. Richards.

### R.S.T. and Mufulira Interims

Rhodesian Selection Trust and Mufulira Copper Mines have announced interim dividend payments in respect of their financial years ending June 30 next, and Mufulira has also announced a special interim dividend of £1,750,000 out of general reserve.

Rhodesian Selection Trust has declared an interim dividend of 7½d. per 5s. share, while Mufulira is paying an interim of 2s. 6d. per £1 share. In the case of both companies it is stated that in the event of it proving possible to change the registration of the company to Rhodesia before the dividend is paid, the dividend will be gross at the appropriate rate of Rhodesian tax and paid under deduction of that tax. In either instance the net payments will be 7½d. and 2s. 6d. per share respectively.

The payment by Rhodesian Selection compares with an interim dividend last year of 9d. per share, which was paid under deduction of U.K. tax at 9s. in the £ and was equivalent to a net payment by the company of 4.95d. per share, last year's final was 1s. 3d. per share.

Mufulira's interim compares with 3s. per share, which was paid under deduction of U.K. tax at 9s. in the £, and was equivalent to a net payment by the company of 1s. 7.8d. per share. Last year's final was 5s. 3d. per share. The boards of companies state that no inference should be drawn from the increase in the net dividend to be paid by the company as to the likely rate of this year's final dividend.

In the case of members from whose dividends the company's paying agents in the U.K. are required by law to deduct U.K. income tax, the U.K. Revenue Authorities have agreed to allow provisional double taxation relief at one-half the U.K. standard rate of income tax—namely, at 4s. 6d. in the £.

Dividends in both cases are payable on or about July 6 to members registered at the close of business on June 8, 1954.

The £1,750,000 special interim dividend of Mufulira, equivalent to 4s. 3.545d. per share, is payable on May 31, to members registered at the close of business on May 24, out of the balance of the general reserve as at June 30, 1953.

The directors also announce that arrangements are being made whereby the shareholders of the company will purchase the company's holding of 1,000,000 shares of £1 each in Chibuluma Mines for cash at par, and will subscribe in the aggregate £750,000 as initial share capital of two companies to be formed in Northern Rhodesia.

They are to be called Baluba Mines, Ltd., and Chambishi Mines Ltd., which it is intended shall respectively acquire the company's Baluba and Chambishi special grants and other special grants and exclusive prospecting licences owned by the company over areas contiguous thereto, for an aggregate consideration equal to the expenditure of the company thereon, namely approximately £710,000.

The formation of the Baluba and Chambishi companies does not denote any intention to develop these properties in the near future, it is stated.

The Rhodesian Selection Trust Group of companies announce that they will establish permanent headquarters in Salisbury, Southern Rhodesia. The date of the move from Lusaka will depend on a number of practical factors which have still to be settled, but in any case will not be before the first quarter of 1955, it is stated.

### Roan's Higher Interim

The directors of Roan Antelope have declared an interim dividend of 7½d. per 5s. stock unit in respect of the year ending June 30, 1954, payable on or about July 13, 1954, to members registered at the close of business on June 8, 1954, and to holders of Coupon No. 29 from the company's stock and share warrants to bearer.

In the event of it proving possible to change the registration of the company to Rhodesia before the dividend is paid, the dividend will be grossed up at the appropriate rate of Rhodesian

tax and paid under deduction of that tax. In either case the net payment by the company will be 7½d. per unit of ordinary stock or share.

This compares with an interim dividend last year of 7½d. per unit of ordinary stock or share which was paid under deduction of United Kingdom income tax at 9s. in the £ and was equivalent to a net payment by the company of 4.125d. per unit of ordinary stock or share.

In making this declaration the directors have been influenced by a desire to distribute as an interim dividend a larger proportion of the estimated total profits for the year than last year, and on the basis of present estimates the final dividend will be materially lower than last year.

In the case of members from whose dividends the company's Paying Agents in the United Kingdom are required by law to deduct United Kingdom income tax, the United Kingdom revenue authorities have agreed to allow provisional double taxation relief at one-half the United Kingdom standard rate of income tax, viz., at 4s. 6d. in the £.

### Rio Tinto Maintains Dividend on Lower Earnings

Figures from the consolidated profit and loss account of Rio Tinto reveal the adverse effect which fixed Spanish internal selling prices for copper, sulphur and pyrites have had on the profits for the year ending December 31, 1953. These price levels are well below costs of production and have brought the net return from this source down from £1,534,282 in 1952 to £732,790 for the past year. Investment income, less tax, however, was somewhat higher at £445,912 compared with £399,630 and after the addition of sundry interest of £18,146 (£7,762) net profit after tax for the year 1953 was £614,087 against £731,326 previously. The ordinary distribution however remained unchanged at 20 per cent, tax free, which included a bonus of 5 per cent. This dividend was paid on the ordinary capital of £2,125,000 in £5 shares.

The company's investments were shown in the consolidated balance sheet as having a book value of £3,663,532 with a market value of £10,955,206 as at December 31, 1953. This compares with a corresponding figure last year of £12,159,151. Current assets, which included cash resources of £2,361,072, exceeded current liabilities by £1,966,579.

Although Rio Tinto is often identified primarily with its large and famous copper mines in Spain and, perhaps, to a lesser extent, with its copper investments in Northern Rhodesia, the company, in recent years has immeasurably broadened the basis of its activities in many parts of the world. Last year, a new Canadian subsidiary was formed known as Ownamin Ltd. for the purpose of investigating mining properties in the Eastern Provinces of Canada, while active exploration of a long term nature also continues in various other parts of the Commonwealth, including Northern Rhodesia, East Africa, South Africa, and Australia, where its interest in uranium is referred to by our Australian correspondent. Moreover, the company is associated in the British Newfoundland Corporation with a number of British and Canadian industrial, finance and mining companies. Apart from these active and widespread activities, Rio Tinto has a majority interest in reconditioning the old lead workings at Wanlockhead in Scotland. A decision as to the future of this project may be possible during the course of the next few months.

Rio Tinto also has substantial interests in the refinery business and owns a copper refinery at Port Talbot in South Wales. Other activities include metallurgical and chemical interests in many countries. In North America a copper extraction business is carried on by a subsidiary company, Pyrites Co. Inc. at Delaware. Another subsidiary, wholly owned, is Pyrites Co. Ltd., a private company dealing in ores, metals and minerals.

At the present market price of around £21¼ a yield of about 8½ per cent is obtainable on the ordinary shares of this company. Meeting, June 10, 1954, the Rt. Hon. the Earl of Bessborough is chairman.

### Consolidated Murchison Continues Profit Expansion

The March quarterly report of Consolidated Murchison (Transvaal) Goldfields and Development Company showed an estimated profit from the production of antimony and gold of £141,865, which compares with a profit of £70,433 in the December quarter, a loss of £46,792 in the September quarter, and a profit of £134,140 in the June quarter last year.

Taxation for the three months ended March 31 is estimated at £43,000.

During the quarter the capital expenditure, less recoupments, amounted to £943; additional revenue of £5 was received from the sales of gold on the free market. No development work was carried out during the quarter.

### Consolidated Zinc Repeat 15 Per Cent Payment

The preliminary profit statement of Consolidated Zinc Corporation for the year ended December 31, 1953, reveals a decrease in the group trading balance and other income from £3,790,360 to £3,427,190. Similarly, the net profit fell from £1,671,150 to £1,393,022. The dividend distribution for the year is maintained at 15 per cent per £1 share on the £6,547,947 issued ordinary capital. The final dividend is 2s. per share. The accounts will be posted to shareholders on May 31. Mr. J. R. Govett is chairman. Meeting, June 23.

### New Broken Hill Pays Same

An advance profit statement of New Broken Hill Consolidated, covering operations for the year ended December 31, 1953, showed that the profit for the year, after providing £277,400 (£245,600) for depreciation, was £677,922 against £818,780. Taxation took £264,660 (£260,760) and the net profit was £413,262 against £558,020. The final dividend is again held at 9d. per 5s. share making, with the interim already paid, 1s. 6d. per share or 30 per cent, the same as in the preceding year. Mr. J. R. Govett is chairman. Meeting, June 23.

### Imperial Smelting Maintains Dividend

Imperial Smelting Corporation, a subsidiary of Consolidated Zinc Corporation, in its advanced profit statement covering results for the year 1953, showed that the trading balance and other income was £1,405,013 compared with £1,469,557, while the net profit declined to £691,115 compared with £965,615. The dividend is being maintained at 6 per cent on the £2,567,457 ordinary issued capital. Mr. J. R. Govett is chairman. Meeting, June 22.

### Aluminium Ltd. Earns More in March Quarter

Consolidated sales of Aluminium Ltd. for the three months ending March 31 last were $75,000,000 compared with $78,800,000 in the same period a year ago. However, lower capital cost allowances resulted in a slightly increased net profit of $3,387,811 compared with $3,070,506. The March quarter profit is thus equivalent to 38 c. per share compared with 34 c. per share earned in the same period a year ago.

### Mining Year Book, 1954

The 1954 edition, the 68th annual issue of this international standard reference work, compiled by Walter E. Skinner, has just been published. Complete and up-to-date particulars are given concerning 970 companies operating in all parts of the world, together with a list of names and addresses of 1,150 mining engineers and mine managers and the companies in the book with which they are connected.

The particulars of each company comprise names of directors and other officials, description of property and plant, operating results, capital, dividends and financial results. The many changes that have taken place during the past year are recorded and should prove invaluable to all interested in the mining industry.

A supplementary index is given containing names of companies which have appeared in previous volumes, also a buyers' guide to manufacturers of mining equipment containing 666 headings.

The book is published by Walter E. Skinner, 20 Copthall Avenue, London, E.C.2, and the *Financial Times*, 72 Coleman Street, London, E.C.2; price 30s. net, 31s. 6d. post free inland and abroad.

### Rand and O.F.S. Returns for April

Randfontein Gold Mining Estates announcing its first uranium profits, was, perhaps, the main attraction of the April returns of the Rand and Orange Free State gold producers.

Randfontein has the largest uranium plant of any of the South African gold mines and commenced trial runs at the end of February. In the monthly production and profit return for April the company announces an estimated gold working profit of £451,042 and revenue from uranium amounting to £76,000, giving a total monthly working profit figure of £527,042. Working costs totalled £525,084, leaving an estimated net balance of £1,958, which compares with a loss of £20,073 incurred on gold operations alone in the month of March.

Of particular interest was the announcement accompanying the return which states that the uranium revenue is subject to future adjustments and represents the estimated valuation of

the uranium output "after deducting treatment costs and provision for the interest on, and amortization of, uranium loans." The announcement also reminds that the transfer of mining operations from the Main Reef series to the Bird Reef series is continuing and that because of certain technical difficulties the uranium plant has not operated at full capacity, though the rate of treatment is increasing.

| Company | April, 1954 Tons (000) | Yield (oz.) | Profit (£000) | Yr. ends | Current Financial Year Total to Date Tons (000) | Yield (oz.) | Profit (£000) | Last Financial Year Total to Date Tons (000) | Yield (oz.) | Profit (£000) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Gold Fields** | | | | | | | | | | |
| Doornfontein | 50 | 15,372 | 73·4 | J | 279 | 82,301 | 297·9 | — | — | — H |
| Libanon | 97 | 19,888 | 53·5 | J | 889 | 181,779 | 470·4 | 823 | 164,539 | 418·4 |
| Luipaards Vlei | 110 | 21,178 | 46·3 | J | 1066 | 198,960 | 414·7 | 1019 | 191,712 | 484·6 |
| Rietfontein | 29 | 6,452 | 25·0 | D | 111 | 24,737 | 96·0 | 104 | 23,349 | 101·4 |
| Robinson | 97 | 20,855 | 24·9 | D | 378 | 99,546 | 88·7 | 382 | 72,570 | 51·4 |
| Simmer & Jack | 128 | 20,683 | 9·8 | D | 507 | 81,400 | 49·2 | 488 | 78,587 | 53·8 |
| Sub Nigel | 66 | 21,912 | 97·9 | J | 663 | 219,442 | 999·1 | 658 | 226,720 | 1141·7 |
| Venterspost | 116 | 26,100 | 60·7 | J | 1071 | 249,793 | 577·0 | 1015 | 237,015 | 610·1 |
| Vlakfontein | 39 | 13,864 | 70·9 | D | 153 | 54,288 | 285·7 | 143 | 52,475 | 280·7 |
| Vogels | 103 | 26,263 | 110·7 | D | 407 | 102,718 | 430·9 | 373 | 94,486 | 376·3 |
| West Drie | 49 | 36,504 | 289·3 | J | 455 | 333,116 | 2682·4 | 305 | 204,425 | 1575·5 |
| **Anglo American*** | | | | | | | | | | |
| Brakpan | 106 | 18,307 | 14·5 | D | 435 | 75,800 | 70·3 | 453 | 81,015 | 80·4 |
| Daggas | 224 | 52,081 | 322·3 | D | 860 | 200,676 | 1231·4 | 879 | 207,884 | 1361·9 |
| East Daggas | 93 | 15,789 | 46·3 | D | 371 | 63,063 | 185·8 | 352 | 61,764 | 194·1 |
| President Steyn | 31 | 7,891 | 1·0 | D | — | — | — | — | — | —‡ |
| S.A. Lands | 101 | 18,580 | 55·4 | D | 394 | 72,453 | 210·5 | 400 | 72,717 | 209·7 |
| Springs | 129 | 18,080 | 7·1 | D | 516 | 72,493 | 31·2 | 595 | 82,211 | 49·3 |
| Welkom | 75 | 14,571 | 5·1 | D | 261 | 52,023 | L 1·2 | 230 | 45,116 | 57·6 |
| Western Hldgs. | 42 | 14,688 | 40·5 | D | 179 | 58,791 | 170·6 | — | — | — |
| West Reef Ex. | 118 | 23,318 | 65·8 | D | 450 | 89,395 | 260·5 | 425 | 87,671 | 324·0 |
| **Central Mining** | | | | | | | | | | |
| Blyvoor | 101 | 58,080 | 451·6 | J | 981 | 576,567 | 4642·4 | 1021 | 615,332 | 5206·4 |
| City Deep | 162 | 30,738 | 16·0 | D | 645 | 123,440 | 72·3 | 626 | 121,245 | 97·7 |
| Cons. M.R. | 167 | 24,117 | 27·4 | J | 1653 | 234,517 | 210·8 | 1764 | 246,493 | 233·0 |
| Crown | 275 | 44,037 | 48·4 | D | 1068 | 172,274 | 190·0 | 1039 | 167,740 | 151·1 |
| D. Roodepoort | §160 | 26,894 | 14·8 | D | 675 | 112,003 | 156·5 | 710 | 122,360 | 315·8 |
| East Rand Prop. | 193 | 43,925 | 109·5 | D | 753 | 172,051 | 447·4 | 729 | 159,355 | 396·3 |
| Modder B. | 54 | 6,030 | 2·2 | D | 223 | 23,466 | 10·3 | 211 | 23,305 | 8·6 |
| Modder East | 112 | 12,891 | 10·0 | J | 1129 | 29,472 | 131·6 | 1149 | 132,654 | 205·1 |
| Rose Deep | 70 | 10,841 | 11·6 | D | 270 | 41,817 | 47·1 | 288 | 42,523 | 25·1 |
| Welgedacht | 32 | 3,915 | 1·9 | J | 334 | 40,914 | 25·0 | 336 | 41,671 | 44·4 |
| **J.C.I.*** | | | | | | | | | | |
| E. Champ d'Or. | 24 | 2,249 | L5·7A | D | 94 | 9,158 | L 51·5 | 100 | 16,366 | 12·2 |
| Freddies N.† | 33 | 6,293 | L 5·9 | D | 120 | 22,782 | L 54·2 | — | — | —F |
| Freddies S.† | 42 | 6,305 | L 4·2 | D | 151 | 22,673 | L 51·6 | — | — | —G |
| Govt. G.M.A. | 255 | 33,573 | 30·0 | D | 1020 | 131,618 | 120·1 | 962 | 132,551 | 240·3 |
| Randfontein | 291 | 36,386 | 1·9B | D | 1126 | 155,797 | 32·6 | 1220 | 158,495 | 120·6 |
| **Union** | | | | | | | | | | |
| East Geduld | 134 | 41,211 | 299·8 | D | 523 | 160,794 | 1170·4 | 534 | 160,192 | 1186·1 |
| Geduld Prop. | 88 | 14,318 | 23·0 | D | 354 | 57,649 | 96·1 | 384 | 60,023 | 128·8 |
| Grootvlei | 180 | 38,250 | 214·8 | D | 702 | 149,579 | 832·8 | 730 | 156,193 | 931·7 |
| Marievale | 64 | 16,290 | 70·9 | D | 252 | 63,944 | 273·6 | 241 | 59,525 | 262·7 |
| St. Helena | 77 | 17,060 | 45·3 | D | 307 | 67,442 | 194·2 | 244 | 48,538 | 69·0 |
| Van Dyk | 77 | 13,476 | 1·3 | D | 311 | 54,200 | 9·1 | 363 | 58,799 | 23·1 |
| **General Mining** | | | | | | | | | | |
| S. Roodepoort | 269 | 5,820 | 20·0 | J | 274 | 59,517 | 202·4 | 269·1 | 61,401 | 231·2 |
| W. Rand Cons. | 220 | 29,074 | 180 C | D | 867 | 114,088 | 693·4 | 892 | 125,795 | 385·6 |
| **Anglo Transvaal** | | | | | | | | | | * |
| N. Klerksdorp | 12 | 1,470 | ·2 | D | 45 | — | L 3·5 | 41 | 5,558 | 4·3 |
| Rand Leases | 176 | 30,096 | 37·2 | J | 1618 | 277,756 | 194·5 | 1719 | 291,723 | 450·6 |
| Village M.R. | 34 | 5,244 | 12·0 | J | 341 | — | 117·7 | 338 | 52,917 | 141·8 |
| **Others** | | | | | | | | | | |
| Ellaton Gld Mng | 28 | 8,038 | 38·1 | D | 99 | 25,509 | 87·4 | — | — | —E |
| N. Kleinfontein | 106 | 13,370 | 14·5 | D | 421 | 53,052 | 66·6 | 421 | 54,621 | 113·0 |
| Nigel Gold | 25 | 3,548 | L10·3 | D | 109 | 16,544 | L 15·9 | 127 | 18,698 | 4·4 |
| Stilfontein | 82 | 27,139 | 153·3 | D | 308 | 98,493 | 531·7 | 238 | 64,573 | 296·3 |
| W. Nigel | 18 | 3,831 | 9·1 | J | 173 | 38,809 | 84·2 | 168 | — | 76·3 |

*Notes.*—Profit figures are in all cases figures of working profit excluding profit from sale of gold at premium prices. In cases of groups marked with an asterisk(*) profit includes sundry revenue. Profit figures preceded by L indicates a loss.
† Excluding development expenditure
‡ Production started in April 1954
§ Skip accident, No. 5 shaft April 8. Operations resumed April 20
A Loss includes uranium as well as gold
B Profit includes uranium as well as gold
C Including £170,000 from sales of uranium

The other feature of the April returns was the entry into the list of producers of President Steyn, the Orange Free State producer in the Anglo American Corporation group. Its maiden return showed that 31,000 tons were crushed, yielding 7,891 oz. Working costs were, as expected, high and at 62s. 7d. per ton reduced the working profit to £1,008.

Expanded profits were announced from Ellaton and Stilfontein in the Strathmore Consolidated group; Welkom showed an improvement; but St. Helena ended its long run of successively monthly increases by announcing a decline in working profits of approximately £5,000 compared with the preceding month.

West Rand Consolidated in the General Mining group reported higher estimated uranium profits although Brakpan, in the Anglo American group, returned a working profit of about £7,000 lower than in March, due to a breakdown of the rock hoist at its No. 3 shaft, which stopped hoisting operations for five days.

## West Africans in April

Although Ariston Gold Mines, with seven months of its current year's results already known, still shows a modest decline in its profits compared with those achieved in the corresponding period a year ago, there is much to like about the way it is forging ahead each month. In April, the tonnage crushed ounces produced, and revenue earned were all records so that the company should be in a favourable position to take full advantage of its new 40,000-ton winder which should be installed by next August.

Gold Coast Main Reef is doing well and with only two more months to go before it completes its current financial year, the end-year results should make interesting reading. The company has recently announced good development results from its Tuappim section where 60 ft. of reef on Level 14 averaged 10.86 dwt. per ton over a width of 113.7 in., equivalent to 1,235 in. dwt.—the full width of the reef, however, was not fully exposed.

| Company | April, 1954 Tons (000) | Yield (oz.) | Profit (£000) | M'ths since year end | Current Financial Year Total to date Tons (000) | Yield (oz.) | Profit (£000) | Last Financial Year Total to date Tons (000) | Yield (oz.) | Profit (£000) |
|---|---|---|---|---|---|---|---|---|---|---|
| Amal. Banket | 67 | 11,205 | 16·3 | 7 | 468 | 75,839 | 97·4 | 421 | 63,729 | 125·3 |
| Ariston Gold | 35 | 11,527 | 59·1 | 7 | 224 | 73,214 | 332·0 | 202 | 70,204 | 340·9 |
| Ashanti | 25 | 16,777 | 69·0 | 7 | 170 | 109,942 | 445·0 | 159 | 104,500 | 537·8 |
| Bibiani (1927) | 30 | 6,300 | 12·6 | 7 | 183 | 44,005 | 55·0 | 212 | 42,946 | 87·3 |
| Bremang* | 371 | 1,254 | L 13·4 | 4 | 1357 | 5,275 | L 31·5 | 2476 | 12,743 | 67·8 |
| G.C.M. Reef | 9 | 4,010 | 11·9 | 10 | 83 | 38,124 | 118·8 | 86 | 33,249 | 104·0 |
| Konongo | 2 | 3,025 | 15·2 | 7 | 18 | 19,404 | 96·7 | 16 | 15,595 | 71·8 |
| Lyndhurst D'p | 1 | 1,167 | 5·8 | 7 | 7 | 8,192 | 39·4 | 7 | 7,479 | 36·9 |
| Marlu Gold | 37 | 2,865 | 3·6 | 7 | 272 | 26,291 | 84·3 | 291 | 28,554 | 88·2 |
| T. & Abosso | 27 | 5,834 | 3·4 | 1 | 27 | 5,834 | 3·4 | 25 | 6,349 | 14·4 |

* Cu. yd. dredged and No. 3 dredge closed Mar. 31 to renew bucket line
Profit figures include premium revenue L denotes loss
As the basis of calculating monthly profits varies from company to company, a direct comparison one with another is not possible. The basis for any one company has, however, remained consistent unless otherwise indicated.

## April Tin Returns

The April production return from Southern Kinta showed up extremely well compared with the company's first month's output a year ago, and the same can be said to apply to Amalgamated Tin Mines of Nigeria and Malaysiam. By way of contrast Berjuntai's April output closed that company's year in a rather inauspicious manner.

The Nigerian tin/columbite producers continue to make good progress with the exception of United Tin Areas, whose output of both tin and columbite compare favourably with that attained in the same period a year ago. Of the Nigerian columbite producers, Bisichi and Gold and Base Metal Mines show the biggest improvement, and with optimum output still to be reached in the rainy season, there is every indication that year-end columbite figures from these two companies should be very good indeed.

| Company | April | Monthssince year end | Financial Year to Date This | Last | Company | April | Monthssince year end | Financial Year to Date This | Last |
|---|---|---|---|---|---|---|---|---|---|
| **EASTERN** | | | | | **NIGERIA** | | | | |
| Ampat | 113½ | 4 | 386 | 384 | Bisichi† | 21 | 4 | 73 | 48 |
| Bangrin | 39½ | 4 | 175½ | 217½ | Ex-Lands | 50 | 4 | 252 | 226 |
| Batu S. | 18½ | 7 | 155½ | 126½ | Filani | 3½ | 4 | 12½ | 19½ |
| Berjuntai | 65½ | 12 | 666 | 1000½ | Gold & Base | 30 | 4 | 165 | 188 |
| Ipoh Tin* | 35½ | 1 | 35½ | — | Gold & Base† | 8 | 4 | 35½ | 22½ |
| Kamunting | 108½ | 1 | 108½ | 126½ | Jantar | 16 | 7 | 118 | 128 |
| Kinta K. | 17½ | 1 | 17½ | 20 | Jantar† | 18 | 7 | 124 | 132 |
| Kinta T. | 25 | 4 | 95½ | 86½ | Jos Tin | 10½ | 9 | 110½ | 121¾ |
| Klang River | 40½ | 1 | 40½ | 34½ | Kaduna P. | 5½ | 4 | 26 | 41 |
| Kuala K. | 186 | 1 | 186 | 191½ | Kaduna S. | 22 | 4 | 96½ | 103 |
| Kuchai | 20½ | 7 | 169½ | 359½ | Keffi | 6½ | 1 | 6½ | — |
| Larut | 80½ | 4 | 317½ | 164½ | Keffi† | 25 | 1 | 25 | — |
| Lower Perak | 238½ | 12 | 1500½ | 1313 | Lond. Nig. | 16 | 12 | 274 | 13 |
| Malaysiam | 9½ | 1 | 9½ | 4½ | Lond. Nig.† | 5 | 12 | 9½ | — |
| Pahang | 220 | 9 | 1980 | 1980 | Naraguta Ex. | 3½ | 4 | 15½ | 26½ |
| Rahman H. | 35½ | 10 | 397½ | 402½ | Naraguta K. | 14 | 4 | 61½ | 46 |
| Rantau | 69½ | 10 | 661½ | 838½ | Naraguta T. | 23½ | 4 | 70½ | 81 |
| Rawang Conc. | 59½ | 1 | 59½ | 72 | Naraguta T.† | 7 | 4 | 30 | 15½ |
| Rawang Tin | 48½ | 1 | 48½ | 61 | Ribon | 6 | 1 | 6 | 6 |
| Renong | 42½ | 10 | 951 | 279½ | Rukuba | 1½ | 1 | 1½ | 2½ |
| S. Kinta | 479½ | 1 | 479½ | 292½ | S. Bukeru | 5½ | 4 | 27½ | 26½ |
| Siamese Tin* | 120½ | 4 | 507½ | — | S. Bukeru† | 2 | 4 | 2 | — |
| Sungei Kinta* | 28 | 4 | 81½ | — | Tinfields of Nig. | 2½ | 1 | 2½ | — |
| Taiping§ | 50½ | 4 | 222½ | — | Tinfields of Nig.† | 2½ | 1 | 2½ | — |
| Tambah | 20½ | 4 | 81 | 27½ | U. Tin | 6 | 10 | 76 | 118 |
| Tanjong | 59 | 4 | 224½ | 220½ | U. Tin† | 0·025 | 10 | 1·415 | 2 |
| Tongkah A | 17½ | 10 | 349½ | 510½ | | | | | |
| | | | | | **MISC.** | | | | |
| **NIGERIA** | | | | | Beralt Tin | 3 | 1 | 3 | 6 |
| Amal. Tin | 308 | 1 | 308 | 258 | Beralt Tin‡ | 130 | 1 | 130 | 170 |
| Amal. Tin† | 48 | 1 | 48 | 51 | S. Crofty Tin | 47 | 4 | 47½ | 43 |
| Bisichi | 41 | 4 | 189 | 180 | S. Crofty Tin‡ | 1½ | 4 | 3½ | — |

* Figures published quarterly for last year
† Columbite ‡ Wolfram § Dredge closed until Sept. 15, 1953
A Harbour dredge closed on April 12 for repairs

# ANGLO-IRANIAN OIL COMPANY

## FORMATION OF CONSORTIUM TO NEGOTIATE SETTLEMENT OF IRANIAN DISPUTE

## TOTAL SALES IN 1953 INCREASED BY 14 PER CENT TO 37,000,000 TONS

## SIR WILLIAM FRASER'S STATEMENT

The 45th annual general meeting of the Anglo-Iranian Oil Company, Ltd., will be held on June 10 in London.

The following is an extract from the statement to stockholders by the Chairman, **Sir William Fraser, C.B.E., LL.D.,** circulated with the report and accounts:

Consolidated trading profit and other income for 1953 was £43,827,585 after provision of £20,056,243 for Depreciation. The gross consolidated profit thus totalled £63,883,828, compared with £61,260,584 for 1952 when depreciation and other write-offs totalling £14,198,946 were provided.

Total Capital Expenditure during 1953 was just under £75,000,000, financed by the proceeds of the Debenture Issue in January, 1953, retained profits and reduction of net current assets. This capital expenditure included the following main items: Aden Refinery, £26,500,000; Kent Refinery, £14,600,000; Kwinana (W. Australia) Refinery, £10,700,000; other U.K. Refineries, £4,300,000; Tankers, £8,500,000; Oil Exploration Interests, £4,500,000 and Marketing Interests, £4,000,000—a total of £73,100,000.

Capital expenditure in 1954 continues to be heavy, being of the order of £60,000,000. As at present foreseen, our main programme of capital expenditure should be completed during 1955, making our requirements thereafter considerably smaller than in the past few years.

After providing £19,342,232 for taxation on profits, the amount available for reserves and dividends is £24,382,850 compared with £25,165,966 for 1952. Your directors have placed £14,000,000 to General Reserve and have recommended a final dividend on the Ordinary Stock of 25 per cent, and in addition a cash bonus of 2s. 6d. per £1 Stock Unit, both less income tax. The total distribution for the year approximates 7 per cent on the Ordinary Stock plus General Reserve.

### THE COMPANY'S INTERESTS IN IRAN

A year ago in my statement I summarized the course of events in 1952 and early 1953 regarding the Company's interests in Iran. At that time the Iranian Government had rejected the latest proposals for a settlement of the dispute which had been submitted through the good offices of the United States Ambassador in Tehran. There then seemed no immediate prospect of reaching agreement with the Iranian Government, either for arrangements to enable large scale activity of the industry to be restored, or for the assessment and payment of compensation to the Company.

As stockholders will be aware, there was a change of Government in Iran during August, 1953. It was thereafter the aim of Her Majesty's Government to secure the resumption of diplomatic relations, which the former Iranian Government had severed in October, 1952.

With a view to exploring on a tentative and hypothetical basis the problems involved if and when Iranian oil should again flow in its traditional markets, I sent invitations early in December, 1953, to the principals of seven other major oil companies to join with us in talks in London. The invitations were accepted, and principals of all seven companies assembled here for talks during December.

In the meantime, in a joint communiqué on December 5, 1953, Her Majesty's Government and the Iranian Government had announced the resumption of diplomatic relations; the communiqué went on to state that the two Governments would proceed at the earliest mutually agreed moment to negotiate a settlement of the oil dispute which had recently clouded relations between them. Mr. D. Wright left London shortly afterwards to take up the appointment of Her Majesty's Chargé d'Affaires at Tehran, and there followed discussions on the oil problem between him and Iranian Ministers. These discussions indicated that the best chance of reaching a solution lay in the formation of a Consortium of Companies, and the Iranian Government itself expressed a wish to seek a solution on such a basis rather than through a single company.

On April 9 an understanding was reached between the seven companies with regard to a basis for the provisional formation of a Consortium. The composition of the Consortium would be as follows: Anglo-Iranian Oil Company, with a 40 per cent share; the five United States Companies, Standard Oil (New Jersey), Socony-Vacuum Oil, Standard Oil of California, Gulf Oil and Texas with an interest aggregating 40 per cent; Royal Dutch-Shell with 14 per cent, and the Compagnie Française des Pétroles with 6 per cent. The Consortium would not be established until there is an agreement with the Iranian Government which is acceptable to all the companies participating.

Throughout the period of these inter-company talks there has been close consultation between the Company and Her Majesty's Government, and between Her Majesty's Government and the United States Government. On the same day as the understanding between the companies was reached, the two Governments instructed their Ambassadors in Tehran to inform the Iranian Government with regard to the provisional arrangements which had been made, and to state that representatives of the Consortium could leave for Tehran for negotiations as soon as the Iranian Government was ready to receive them. The Iranian Government immediately issued an invitation and a delegation of three negotiators left London on April 10.

Parallel with the negotiations between the Consortium delegation and the Iranian Government, negotiations with regard to the compensation to be paid to the Anglo-Iranian Oil Company by the Iranian Government are being conducted by Her Majesty's Ambassador, who arrived at Tehran in March. It had been agreed that this question, with which the other members of the Consortium are not directly concerned, should be dealt with separately.

The two sets of negotiations are now in progress and I will not comment further at this stage. Any developments between now and the Annual General Meeting will be reported to you on that occasion.

### PRODUCTION, EXPLORATION AND REFINING

Crude oil production in Kuwait, Iraq and Qatar was again substantially increased during 1953, when our off-take from those sources totalled some 32,200,000 tons compared with 25,600,000 tons in 1952. Our range of exploration activities (including Australia, Papua, Canada, East and West Africa, Trinidad, Sicily and the Persian Gulf) has been further extended.

Our total refinery throughput during 1953, at 20,000,000 tons, was 2,000,000 tons greater than in 1952. With the new Aden refinery coming into commission this summer, and Kwinana (W. Australia) refinery early next year, as well as expected increases in capacity of some of our existing refineries, our total refining capacity by the end of the year should be some 30,000,000 tons. Parallel with this expansion in refining capacity, our refining operations and the quality of products are being continuously improved by the installation of new plant, in a constant effort to achieve the most efficient and competitive production. In Great Britain, our refinery throughput in 1953 was 9,327,000 tons against 6,788,000 in 1952.

The statement details the Company's refinery operations in Belgium, France, Germany, Italy, Israel, Kuwait, Australia and Aden.

### DISTRIBUTION AND SALES

World demand for petroleum products (excluding the Iron Curtain countries) increased by about 5 per cent in 1953, a similar rate to that experienced in the preceding year. In the Eastern Hemisphere the increase in consumption was about 8 per cent, only fractionally less than in the preceding year.

1953 was our second full year without supplies from Iran. As reported last year, although the Anglo-Iranian Group's sales of over 32,000,000 tons of crude oil and products in 1952 were 3,000,000 tons below those for 1951, our position had been improving. This improvement continued, with the result that the Group's sales of crude oil and products in 1953 increased by 4,500,000 tons, or just over 14 per cent compared with 1952, and totalled just under 37,000,000 tons. This increase occurred mainly in crude oil sales; sales of refined products increased by rather over 1,000,000 tons and were supplied to a greater extent from our own resources.

In the summer of 1953 there occurred the first general rise in the level of crude oil prices since 1947. Prices in the world market for the main products were adjusted initially to reflect the full extent of the increase in crude oil costs to the refiner, but there was a recession over the latter months of the year in motor spirit prices. The fall in tanker freight rates in the latter half of 1952 continued throughout 1953 but in a much sharper degree, and these lower freight charges were appropriately translated into reduced selling prices in our markets. The level to which tanker freights had fallen by the end of 1953 was, however, so low that further reductions in the selling prices of products from this direction can scarcely be expected.

Severe competition has been experienced in all our markets and trading conditions have been far from easy. We are still suffering from the handicap of having to supply our Eastern markets uneconomically due to our lack of refining capacity East of Suez and the excessively long hauls in which we are thereby involved. The commissioning of Aden Refinery later this year and Kwinana early in 1955 will rectify this position.

# DE BEERS CONSOLIDATED MINES LTD.

(Incorporated in the Union of South Africa)

### A SUCCESSFUL YEAR

### PROSPECTS OF THE DIAMOND TRADE

### SIR ERNEST OPPENHEIMER'S STATEMENT

The sixty-sixth annual general meeting of De Beers Consolidated Mines Ltd. (incorporated in the Union of South Africa), will be held on June 9 in Kimberley.

The following are extracts from the statement by the Chairman, **Sir Ernest Oppenheimer, D.C.L.,** circulated with the report and accounts for the year ended December 31, 1953:

### CONSOLIDATED ACCOUNTS

The Consolidated Balance Sheet and Consolidated Profit and Loss Account are consolidations of the individual accounts of the following Companies:

De Beers Consolidated Mines Limited.
The Consolidated Diamond Mines of South West Africa Limited.
Premier (Transvaal) Diamond Mining Company Limited.
The Diamond Corporation Limited.
De Beers Investment Trust Limited.
De Beers Industrial Corporation Limited.
Griqualand West Diamond Mining Company (Dutoitspan Mine) Limited.
The South West Finance Corporation Limited.
H.L.G. Limited.
Marmora Mines Limited, and
New Jagersfontein Mining and Exploration Company Limited.

The Consolidated Profit and Loss Account shows that the Group profit for the year, after providing £6,661,969 for taxation, was £18,354,829 in which the Outside or Minority shareholders have an interest to the extent of £1,600,043 including their proportion of dividends declared by Subsidiary Companies, leaving a balance of £16,754,786 attributable to your Company as its share of the profits. To this sum has been added an amount of £16,924,616 being the Unappropriated Balance at December 31, 1952, after allowing for an adjustment in respect of Minority Interests, giving a total available for appropriation applicable to your Company of £33,679,402. Out of this amount, £4,522,155 has been transferred to Reserve, and £8,964,038 has been declared in dividends, leaving an unappropriated balance of £20,193,209 (representing an increase for the year of £3,056,796) of which £7,474,432 is in your Company's own accounts and £12,718,777 is your Company's interest in the unappropriated balances in the accounts of its subsidiary companies.

The Consolidated Balance Sheet shows total assets of £114,528,056. This includes the sum of £15,236,135 being the net excess of cost of investments in subsidiary companies over their nominal value, less amounts written off and after adjustment on consolidation. This latter sum is more than covered by Capital reserves on the other side of the Balance Sheet totalling £38,248,535. Current Assets, Loans to other Companies, and Investments total £75,818,855 and exceed all liabilities to the public by £57,271,572. The remaining items in the Consolidated Balance Sheet do not call for comment.

Your Company has had a successful year. The Group has financial reserves which, together with the £15,000,000 Capital Resources of the Trading Companies, afford solid protection under all foreseeable contingencies.

### PROSPECTS OF THE DIAMOND TRADE

I now pass on to a review of the diamond market during 1953. At £43,336,000, gem sales were £2,400,000 less than in 1952. I wish to stress that this drop was not due to any falling-off in demand, but was occasioned solely by the fact that less diamonds were available although all producers were working to full capacity.

Gem stocks held by all producers and the Diamond Corporation Limited are at an irreducible minimum. It is, therefore, evident that future sales of gem diamonds are entirely dependent on current production. From this it follows that the value of gem diamonds to be sold in 1954, assuming present price levels, is likely to be somewhat lower than last year.

On the industrial side of our business, there was a marked falling-off in 1953. This was due, in part, to the cessation of stockpiling purchases by the United States Government, but also occasioned by the decline in demand for industrial diamonds. Active research is being conducted with the object of widening the industrial market.

The sales of industrial diamonds for the first quarter of 1954 at £4,500,000 were better than during the relevant period in 1953. This, however, can be misleading, as the increase was due to unexpected sales for stockpiling. Present indications are that we can expect total sales of industrial diamonds in 1954 to be somewhat less than they were the previous year.

There are at present no signs of any falling-off in the demand for gem diamonds, and unless there is a severe recession in the United States, 1954 should be another satisfactory year. Whilst the United States is still our principal customer, recently there has been a welcome development in that cut diamonds are being exported by manufacturers in various centres, to countries other than the United States. We shall watch this new development with close interest as its expansion can only be of benefit to us.

### INVESTMENTS OUTSIDE THE DIAMOND INDUSTRY

I now wish to comment on our principal investments in enterprises not connected with the Diamond Industry.

Your Company's shareholding in De Beers Industrial Corporation Limited remains unchanged at 3,587,434 Ordinary Shares which is 71¼ per cent of the Issued Ordinary Share Capital. The principal asset of the Corporation is its 50 per cent holding in the equity share capital of African Explosives and Chemical Industries Limited.

De Beers Industrial Corporation had a successful year and maintained its dividend of 10 per cent in spite of the fact that the dividend income received from its holding in African Explosives and Chemical Industries was reduced.

Once African Explosives and Chemical Industries Limited reach their full scope, coupled with the expansion by other companies in which De Beers Industrial Corporation Limited are interested, we can anticipate that the dividends receivable by our Company from De Beers Industrial Corporation will increase.

De Beers Investment Trust Limited, incorporated towards the end of 1952, has completed its first year of business. The greater part of the Trust Company's assets is by way of loans, at satisfactory rates of interest, to companies operating principally in the Orange Free State and the West Rand, which loans carry valuable conversion rights.

The market value of the Trust Company's investments per March 31, 1954, reflects an appreciation of no less than £3,750,000 over cost.

The Trust Company is now firmly established on a sound basis according to a pattern which indicates that it will thrive and expand, at the same time contributing to the development of Southern Africa. A cause for sober optimism is that it is certain that the Trust Company in due course will be a substantial contributor to the revenue of the parent company, such revenue being derived from sources other than the diamond industry.

# ST. HELENA GOLD MINES, LTD.

**Mr. P. M. Anderson,** the Chairman of the Company, in addressing members at the Annual General Meeting held at Johannesburg on May 6, 1954, said that the tonnage milled in 1953 was 799,000 tons which was 201,000 tons higher than in the previous year, and the yield improved slightly to 4.06 dwt. As a result of the higher tonnage, the charge per ton for development was substantially lower and that for overhead expenses somewhat reduced so that, in spite of increases in the cost of labour, stores and power, working costs at 42s. 9d. per ton milled were 3s. 9d. per ton lower than in 1952.

The working profit for the year increased by £207,061 to £330,348 and, after taking into account the items detailed in the Profit and Loss Account, the net profit was £261,535. After making provision for the various items detailed in the Appropriation Account, the carry forward was increased by £96,805 to £105,164.

Net expenditure on fixed assets during the year totalled £225,808, including £163,795 in respect of development footage in excess of that charged to working costs, and was financed out of capital funds in hand.

Mainly as a result of the shortage of labour, the total development footage at 57,966 ft. was somewhat lower than in 1952. Of the 25,665 ft. on Basal Reef and sampled, 13,560 ft., or 53 per cent, proved payable with an average value of 10.5 dwt. over 31 in., equivalent to 325 in. dwt. Though the footage sampled was slightly lower than in the previous year, the percentage payability showed a distinct improvement and there was also an increase in the in. dwt. of the payable footage. These improvements were partly due to the good results obtained from development work in the northern portion of the mine.

The ore reserve, re-calculated as at December 31, 1953, was 2,000,000 tons, averaging 5.3 dwt. over an estimated stoping

width of 51 in. representing an increase of 750,000 tons, the value being unchanged and the estimated stoping width being one inch more.

During the first quarter of 1954, the scale of milling operations continued to increase and the yield per ton milled rose to 4.38 dwt. The ore milled totalled 230,000 tons and the working profit was £148,914. 12,181 ft. were driven of which 4,605 ft. were on Basal Reef and sampled, disclosing 3,000 ft., or 65 per cent, payable, averaging 18.2 dwt. over 28 in., equivalent to 509 in. dwt.

It had been found that the milling section of the reduction plant was capable of exceeding its designed capacity of 80,000 tons per month and that, with slight extensions to the cyanide section, which work was now in hand, the plant should be capable of treating slightly more than 100,000 tons per month.

In concluding, Mr. Anderson said that the profitable exploitation of the Company's large lease area would call fairly soon for an additional vertical shaft to be followed, in due course, by a further expansion of milling capacity. But, before deciding on the location of this shaft, further information was needed about reef depths and geological structure to the east of the present workings and, accordingly, a programme of diamond drilling from surface was in progress which would take some time to complete. The method of financing the shaft would be decided in due course.

The Report and Accounts were adopted and the retiring directors, Messrs. P. M. Anderson, S. R. Fleischer and H. C. Koch, were re-elected.

## EAST GEDULD MINES, LIMITED

**Mr. P. M. Anderson,** Chairman of the Company, in addressing members at the Annual General Meeting held at Johannesburg on May 6, 1954, said that owing to the shortage of Native labour the tonnage milled during 1953 was 115,000 tons lower at 1,610,000 tons so that although the yield was slightly higher at 6.03 dwt. per ton, the output declined by about 6 per cent to 485,267 f.oz. Because of this and the lower price received for gold the working revenue at £6,093,978 was £522,657 lower than in 1952. Owing to increased costs of labour, stores and power and the higher incidence of overhead charges on the lower tonnage, the working costs rose by 2s. 9d. per ton milled and absorbed £2,409,754 so that the working profit was £3,684,224 or £590,129 less than in 1952.

He stated that the Company's provision for the outstanding liability in respect of silicosis compensation, as re-calculated at March 31, 1953, increased by £5,084 to £130,822 which had been fully provided. In addition £84,335, equivalent to 1s. per ton milled, was charged to working costs in respect of the additional outstanding liabilities under the 1946 and 1950 Acts and the normal quarterly levy.

Provision for taxation amounted to £1,982,206 and, after taking into account income from investments amounting to £62,221 and the other items detailed in the Profit and Loss Account, there remained a net profit of £1,760,031 which was £269,351 less than in 1952. Dividends totalling 3s. 6d. per unit of stock, being a decrease of 7d., were declared and absorbed £1,575,000. Capital expenditure absorbed £155,446 and £551,079 was carried forward. It was expected that capital expenditure during the current year should be considerably lower.

The total development footage driven at 10,979 ft. was 3,695 ft. less than in 1952. 8,299 ft. were on the Main Reef Horizon of which 4,740 ft. were on reef and sampled disclosing 3,495 ft., or 74 per cent, payable with an average value of 10.1 dwt. over 28 in. On the Kimberley Reef Horizon 2,680 ft. were accomplished but, of the 2,110 ft. on reef and sampled, only 240 ft. proved payable. In view of the disappointing values disclosed by development exploration work on the Kimberley Reef Horizon has been suspended. The No. 1A subvertical shaft to serve the south-eastern portion of the mine was sunk to its final depth of 2,682 ft. during the year and its equipment is now complete.

The re-calculated ore reserve decreased by 500,000 tons to 11,500,000 tons, the value and estimated stoping width remaining unchanged at 5.7 dwt. and 51 in. respectively.

During the first quarter of 1954 the ore milled amounted to 389,000 tons and the working profit was £870,576. Development work on Main Reef totalled 2,117 ft. of which 1,285 ft. were sampled disclosing 950 ft., or 74 per cent, payable averaging 12.5 dwt. over 24 in.

The Report and Accounts were adopted, the appointment of Dr. H. R. Raikes to the Board was confirmed and the retiring Directors, Messrs. J. MacG. Love and T. P. Stratten, were re-elected.

## SAN FRANCISCO MINES OF MEXICO

### MR. C. E. TEMPERLEY ON MEXICAN FISCAL POLICY

### EFFECT OF FALL IN METAL PRICES

The 41st annual general meeting of San Francisco Mines of Mexico Limited was held on May 18 in London.

**Mr. C. E. Temperley, O.B.E., M.C.** (the chairman), presided and in the course of his speech said: Compared with the previous year the important changes in the accounts are these: The proceeds from the sale of our production fell by £2,754,000; our tax bill fell by £2,368,000 and our costs rose by £330,000. These are big figures. The fall in gross revenue was, of course, a direct consequence of the fall in metal prices. The fall in taxes arises on two counts; firstly, there was the natural reduction in tax consequent on the fall in the gross value of our products and in the profits earned on them; secondly, we reaped the benefit of an important increase in the amount of Unilateral Relief from British Tax accorded to us by the United Kingdom Finance Act of 1953. The increase in costs reflects the larger tonnage milled, the higher rate of wages conceded to the workmen and the cost of a pointless strike. The end-effect of these changes was that the net profit for the year fell by £715,000 to £255,000. As a result of the increase in Unilateral Relief granted by the U.K. Finance Act 1953 we were also able to transfer back to Appropriation Account an amount of nearly £400,000 out of our provision for taxation for 1951/52 which had been calculated on the old basis. Your directors recommend a dividend of 2s. per unit out of the profits from operations and a bonus of 2s. per unit out of the saving in past tax provision or a total distribution of 4s. per unit.

From a technical point of view, operations at the mine were entirely satisfactory.

Underground development at our two mines continued to show satisfactory results.

### STAGGERING TOLL OF TAXATION

Mexican Production and Export Taxes, which are assessed on the gross value of our products, continued to take a staggering toll of our revenue. The proportion of our gross margin which was absorbed by Mexican Production and Export Taxes increased from about 40 per cent in the good year of 1951/52 to more than 80 per cent in the difficult year under review.

The Mexican Government has recently devalued their currency from Pesos 8.65 to Pesos 12.50 to the dollar. At the same time that devaluation was announced, the Export Tax on metals was raised from 17.8 per cent to 28 per cent. The effect of this is that the major part of any possible benefit of devaluation to the mining industry has been appropriated by the Government at the source.

### MINING INDUSTRY AND MEXICAN ECONOMY

I sometimes wonder if the Mexican Government knows where it is going with its fiscal policy towards the mining industry in Mexico. The industry has always been and still is one of the mainstays of the whole Mexican economy. And yet the Government's fiscal policy has time and again been apparently aimed at curtailing all new enterprise and reducing the productive capacity of existing enterprises in this important field. It seems to me that a completely new approach by the Mexican Government to the question of taxation of the mining industry and a real reduction in the total rate of tax paid by it is now essential if the industry is to prosper and thus continue to be the important prop to the Mexican economy which it has been in the past. The industry has been pressing its claims on the Mexican Government to this end. Let us hope the Government will listen.

### METAL PRICES

For several years your Company enjoyed high metal prices and earned handsome profits. Metal prices rise and fall like the tide. The tide has now ebbed and at present prices our earnings are comparatively small. Fortunately your Company is better placed than most—both technically and financially—to meet such a situation. When large profits were available we spent a good deal of money improving the technical efficiency of the mine and mill—and these improvements will now stand us in good stead. Moreover, it has been the Board's policy to build up and maintain a strong cash position and our finances are still very strong indeed. It is impossible to predict the duration of present conditions, but I am confident that when the tide does turn your Company will be in excellent shape to resume its prosperous journey without difficulty or delay.

The report was adopted.

# THE STRAITS TRADING CO., LTD.

At the Annual General Meeting of the Straits Trading Co. Ltd. held in Singapore on May 12, 1954, the Chairman, **Sir Ewen Fergusson,** who presided, said:

The Report and Accounts for the year ended December 31, 1953, having been in your hands for the prescribed time, I shall with your permission take them as read.

Again, there has been practically no variation in the quantity of tin ore handled by the Malayan smelters. There were signs during the latter months of the year that increased quantities might become available from Siam, consequent on the curtailment of purchases by the United States Government Agency operating there. This curtailment of purchases was, of course, closely linked to the decision to close the Texas Smelter, a redundant plant which, it is hoped, will in due course cease to be an artificial factor in the movement of ores from the mining areas to the consuming centres. Unfortunately there are other factors which operate in regard to the final destination of ore from Siam.

## THE FOREIGN EXCHANGE SNAG

The main one is that of foreign exchange, for in spite of the robust revival in the value of sterling against the U.S. dollar, it is clear that the restrictions on convertibility of sterling still remain a barrier to the free movement of trade. So long as there are these restrictions there must continue to be abnormalities in the interchange of goods and services. Even if the restrictions are interpreted by the authorities in the most liberal manner, the fact that controls and the necessary bureaucratic machinery to make them function exist is a deterrent in itself.

We are quite certain that the service the Malayan smelters provide to the mining industry and the charges we make are unequalled anywhere in the world. It is therefore disappointing to see ore supplies in transit through Malaya to other destinations for reasons which are primarily the acquisition of a currency which is freer to deal in than sterling. The sooner sterling is fully convertible the better it will be for the Malayan smelting industry; so we hope that every recent move towards this end by the U.K. Government is a welcome sign of a speedy termination of Exchange Control.

During the year various happenings affected the course of the Tin Market. In the early part it was sustained by the price at which purchases were made for the American strategic stock, and also by the war in Korea. With the signs that an armistice was approaching there was a severe drop in the price, though of course the United States continued its stockpile purchases under the bi-lateral agreements with the Belgian Congo, Bolivia and Indonesia at the negotiated price of approximately £960 per ton metal. With the actual cessation of hostilities in Korea and the consequent uncertainty as to the future policy regarding the stockpile, fluctuations in the market were inevitable.

There is little doubt that the dominant factor in tin over the last few years has been the special demand for the strategic stockpile. It has called for a flow of capital investment to meet it, and a price which would encourage the necessary capital investment to exploit the lower grade deposits which had to be worked if the quantity was to be obtained. It is stating the obvious to say that any change in United States tin policy is of paramount importance to the producers. A rapid cessation of their special purchasing would produce chaotic results in an industry which has striven to meet the special requirements imposed upon it. It was with uncertainty on this point overhanging it that the industry went to Geneva last year; hence the importance attached to the Geneva Conference in November.

## TIN OUTPUT MAY FALL BELOW NEEDS

One has to be realistic. The unusual American demand was created and it was met at a price. In doing so, a productive capacity above normal world's need was encouraged. There is little doubt that much of this will go out of production in the not so distant future by steady exhaustion of the known mining areas. It is merely repeating what has been said many times, that tin bearing ground is becoming more and more difficult to find, and what is being found is very much more costly to equip and operate. The long term outlook for production is, in the absence of rich new fields being discovered, more likely to be less tin than is required for the world's needs than any serious excess.

Changes and economy in use have been encouraged by the World War, and to use less tin has been a patriotic act in the United States. Nevertheless, it is perfectly normal in the constant striving for industrial efficiency to seek the minimum use of raw materials to the maximum benefit. How to use less tin in tinplate, for instance, is not a new objective. It has always been the aim of the tinplate manufacturers, but the new speed of producing steel strip accelerated research, resulting in the rapid development of the electrolytic process of making tinplate. Particularly with an expensive metal the producer is always faced with a consumer who is constantly striving to use less; at the same time, the consumer is always striving to sell more of his product; so in the end it is not all loss and it may even be a gain for consumption. While I consider that all American policy has not been beyond criticism, it is my opinion that apart from a few hysterical utterances at times, the American approach has in no way been antagonistic to the industry, and I have always found a desire on their part to appreciate the point of view of others without necessarily sacrificing their own opinions or beliefs.

Their recent decision to continue adding to the stockpile and the assurance that it will not be placed on the market have been of great value, and have removed a serious uncertainty for the time being, thus giving breathing space for consideration of the Geneva Tin Agreement.

Geneva produced an agreement for signature which seems to me to be more in favour of the consumers than the producers. The producers undertake to finance and carry a stock of 25,000 tons of metal, thus assuming a heavy financial burden and to some extent absolving the consumer of the normal task of ensuring his own supplies through the normal system of marketing. The only complaint which any consumer can make is that the price he might be required to pay is higher than might otherwise be the case. The producers' case is the simple one that they hope to provide stability and plentiful supplies within reasonable fluctuations. Until the end of June it will not be known whether there are sufficient signatories to the agreement to make it operative.

I now turn to the accounts. The profit for the year is slightly up over last year, and we have been able to make a transfer to our internal reserves because of a revaluing of stocks. Good dividends, though at lower rates, came from Sundry Investments, and we also received a dividend from Pelam Estate. We have again decided to recommend a transfer of $500,000 to Investment Reserve, which will then stand at $2,500,000. In view of the fact that a large portion of our investments is in tin-producing companies, and as a portion of any dividends from them may be taken to represent a part return of capital, the proposal is a sound and wise one in the circumstances. I make no apology for building up the strength of the Company. It requires large sums for working capital and it is therefore necessary to retain in the business sufficient resources to meet any contingencies which may arise.

## WAR DAMAGE COMPENSATION STILL UNSETTLED

In the Balance Sheet, Issued Capital and General Reserve remain unchanged, while Investment Reserve reflects the appropriation sanctioned at the last meeting. There has been no change in the item War Damage Compensation but in the very near future we hope to commence further discussions with the Commission. I expect, with some confidence on this occasion, that a settlement will be reached before the end of the current year. We have had many disappointments over the tardiness of the negotiations, and have frequently had the feeling that the harder a company was hit and the more it suffered, the longer it had to wait for its claims to be assessed.

Sundry Creditors and Credit Balances remain practically unchanged, and the Bank Overdraft has been reduced, which is to be expected with the price of tin considerably below the price at the end of the previous year.

On the Assets side, Works, Land, Building and Furniture again reflect the cost of the rehabilitation work being carried out at Butterworth. We hope that by this time next year the restoration of our essential smelting capacity will be complete.

Investments in Sudsidiary Companies show little change, but further advances have been made to the mining subsidiaries. As stated last year, a considerable portion of the amount shown as due to us is liquid, and of course the amounts due by us to the subsidiary companies help us to provide the large amount of working capital necessary to run a business such as ours. We have considered it prudent to reserve against certain expenditure incurred by the subsidiary companies.

The item Sundry Investments shows a decrease because of a transfer, for reasons of convenience, to one of the subsidiary companies. The present market value is still above the figure shown in the Balance Sheet.

Tin and Tin Ore in Stock and in Transit reflect the lower price of tin metal during the year. It continues to be safely and conservatively valued after allowances for smelting, treatment and othed contingences. Sundry Debtors and Debit Balances call for no special comment.

Regarding our sudsidiary interests, the British Tin Smelting Company Limited, according to our latest reports, is earning

satisfactory profits during the current year. Pelem Estate continues to prove its worth, and we now have over 3,800 acres of high yielding rubber in bearing and 1,000 acres of new rubber have been planted or will be planted before the end of this year.

### TIN MINING INTERESTS

With regard to our mining properties, the small dredge operating in Pahang continues, I am glad to say, on a profit-earning basis. With the Renong Tin Dredging Company Limited, we have come to a joint working arrangement to operate the Straits Tinfields mine at Jinjang. The independent check boring confirmed our own bores, and the modern Renong dredge with its up-to-date clay treatment plant should soon be working on the property. If recoveries are up to the indications, we anticipate good returns from this source. In regard to the Laboo Mine in South Siam, the large milling plant is now in transit from the United States and United Kingdom. It will take some time to move the plant to Siam, as communications are somewhat difficult, but we have reasonable hopes that by this time next year, the mine should have commenced operations. Development work to date has confirmed the indications given by diamond drilling, and our technical staff continue to express confidence in the future of this area.

In East Africa the Kyerwa Mine has not made the progress hoped for. It is in an isolated part of Tanganyika, and deliveries of plant from the United Kingdom have been slow and unpredictable, and of course the chaotic conditions at the East African seaports are such that sometimes it takes months for goods to be cleared from them. This mine, in which we have only a majority interest, will take some time to get organized and established.

At last year's meeting, one of our members enquired about the value of our dump slags in view of the rumours regarding the columbite contained therein. All we are able to say is that no further interest has been evinced in them, and we do not look on them at the present time as having any economic value.

At the end of the year, Mr. A. C. Baxter, who had been with the Company since 1924, and had been one of our Directors, completed 30 years' service and left on retirement. Mr. G. C. Thompson, who also joined the Company about the same time, left soon afterwards. Both these gentlemen gave loyal and unflagging service to the Company and we wish them well in retirement.

Because of our wide interests, and in particular the development of the subsidiary interests, it was considered advisable to appoint two members of the staff to the Board of Directors, and I have pleasure in welcoming Mr. R. W. Brown and Mr. W. Rodger to this table. Both of them have given excellent service over many years, and are well suited to the managerial posts to which they have been promoted. This has meant that including myself, three of the directors are now members of the staff, and it is therefore felt that it would be advantageous to increase the total number of directors which the Company might have from five to six. To give effect to this, a resolution will be proposed later.

In conclusion, I must pay willing tribute to the staff of the Company throughout Malaya and in the subsidiary companies. I think I can with some justification state that the Company is now approaching the strong financial position which it held before the war. The way has been hard, and frequently worrying, in view of the damage we suffered and the large amount of money which was needed and is required to run a business such as ours. In reaching this position, all members of the organization have borne their share, and I am sure you will wish me to record our gratitude to them.

The report and accounts were adopted.

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## THE SCOTTISH AUSTRALIAN MINING CO., LTD.

The Annual General Meeting of The Scottish Australian Mining Company, Limited, was held at the Offices of the Company, 197 Winchester House, Old Broad Street, London, on Thursday, May 13, 1954.

**Mr. John Norman Eggar** (Chairman) who presided said:

Gentlemen,

Before asking Mr. Snow, the Acting Secretary, to read the Notice convening the Meeting, I refer with great pleasure to the fact that Mr. Freeman, our Secretary, has made a very good recovery, and we have every hope of his being able to resume work within the next two months.

The Report and Accounts have been in your hands for the requisite period. May I take them as read? (Agreed.)

The coal output from the collieries working on our Lambton Estate at 93,255 tons was within a few hundred tons of the previous year's output. At the beginning of the year the prospects for these small collieries producing coal from the Victoria Tunnel Seam, which is by no means first grade, were far from encouraging, but during the year conditions improved. At all collieries the number of days worked was slightly less than the previous year. At Lambton Central No. 1 Pit, 29 days were lost by strikes, and at No. 2 Pit, 46 days. A number of improvements have been carried out at Crofton Colliery, e.g. a new bath and change house which is in full use. Generally speaking, the quality of the coal has been well maintained. I should be well satisfied if as large an output could be sold during the coming year, but demand is rather uncertain and the Interstate trade has fallen off.

### LAMBTON ESTATE

The sale of property in the area West of Croudace Street, to which I referred last year, took place in July last and was very successful, the 39 blocks realizing £A16,130 with a resultant surplus of £A11,573. 22 of the sales were for cash, others on terms bearing interest. Further sales have been made during the current year, and we are continuing the policy of development.

The profit for the year was £1,213 compared with £363 in 1952. Revenue from Rents, Royalties, etc., increased by £158. The income from investments is slightly less due to the sale of some Commonwealth Loans. Administration expenses show little variation. The abolition of Federal Land Tax in Australia resulted in a saving of £871. On the other hand United Kingdom and Australian Taxation absorb £1,203, compared with £325.

As regards the Balance Sheet, Fixed Assets increased by £81, representing expenditure in preparing sites for future subdivisions. Sales of Commonwealth Loans reduced the book value of these by £2,645. We increased our holding of shares in The Steamships Trading Company Limited during the year, which accounts for the addition of £1,337 to our "Other Investments." This company continues to do well, and its dividend was maintained on the increased capital. It is satisfactory to note that the market value of other "Other Securities" is over £5,000 in excess of the book value—Capital Reserves. Surpluses on Land Sales taken to Capital Reserve amounted to £6,313 which enables the payment of a capital distribution at the rate of 6d. per 4s. unit. Surpluses on uncompleted Land Sales effected during the year and transferred to Suspense Account amounted to £3,534. You will agree that the Balance Sheet discloses a healthy position, and it should be possible during the course of this year to make a further capital distribution.

During the last few months one of your directors, Mr. D. B. Reid, has been in Australia. He visited your property and the collieries working on it and was most favourably impressed by all he saw, and particularly by the ability and foresight which our Estate Agents, Messrs. Creer and Berkeley, are showing in the planning for and disposal of building sites on our properties.

Before closing I should like to pay tribute to the able manner in which Mr. Lee, our Manager in Australia, has conducted our affairs. Our thanks are due to him and to Mr. Snow and the London staff for their capable and enthusiastic work.

I now beg to move that the report and accounts for the year ended December 31, 1953, be received and adopted and that the recommendation of the Board for payment of a dividend of 4½ per cent, less income tax, be approved and that the dividend be declared accordingly.

Mr. L. M. Gibson Harris, F.C.A., seconded the motion which was carried unanimously.

Mr. David B. Reid, the retiring director, was re-elected. The fee of the Auditors, Messrs. Westcott, Maskall and Co., was also approved.

## RAND MINES, LIMITED

At the Annual General Meeting held on May 14, 1954, **Mr. W. M. Frames,** who presided, in the course of his remarks said:

Dividend receipts, which are the chief source of revenue for your company, decreased by £125,298 and, due to this and other variations in items of revenue and expenditure, profit before taxation was lower by £148,604. After maintaining dividends at the previous year's level of 6s. per share and transferring £22,403 to Exploration Reserve, the unappropriated balance increased by £6,711 to £1,884,719. Although the company acquired further shares in the Harmony and Northern Lime companies, its net liquid surplus was increased by £293,641 to £1,683,056, mainly as the result of the realization of certain other investments. In pursuance of the new Companies Act the value of investments, other than those in respect of pension fund deposits, was written up in order to maintain such shares and debentures at the lower of cost or Stock Exchange value or Directors' valuation if unquoted. After taking this adjustment into account, the total of the said investments, at £6,761,221, was £789,166 higher than in 1952. The amount written back on investments, together with a net credit from sales of certain investments, formed the bulk of the amount of £1,146,303 which was added to Investment Reserve, raising it to £5,893,306 at December 31, 1953. Expenditure on prospecting ventures amounting to £38,608 was debited to Exploration Reserve which, after allowing for a transfer of £22,403 from the profit and loss account, stood at £300,000 at the end of the year.

As I have already stated, your company's chief source of revenue arises from dividends from gold mining companies. The fall in revenue, therefore, reflects the deterioration of the financal results of operations of the producing mines of the gold mining industry. The tonnage milled in 1953 was 1,228,500 tons less than for 1952 but a higher yield enabled the industry to increase its output by 142,928 oz. Nevertheless, due mainly to the reduction in the additional income from sales of gold at enhanced prices and, to a lesser extent, to the lower determined price of gold, working revenue was lower by £810,176. Working costs continued their upward trend and were higher by £4,821,226; the net result of these variations being a reduction of £5,631,402 in working profits.

From the above figures it will be appreciated that the disappointing deterioration in the results of operations was due mainly to a substantial increase in working costs. Commencement of operations at several new mines has added materially to the industry's total expenditure but has made little impression on its output figures as with no expansion in the total labour force these mines were operated largely at the expense of the older mines. During the current year the pattern of results will be similar, in that further mines will reach the production stage and add to both the industry's expenditure and the overall demand for labour. There are encouraging indications that the average yield of the new and expanding mines will, in due course, be appreciably higher than the industry's average and that some of the problems which have beset the industry in recent years are easing.

The average number of non-Europeans in the service of the producing gold mines during 1953 was 266,333, compared with 276,280 for 1952. In the latter half of 1953, however, the seasonal decline was less severe and of shorter duration than in past years, with the result that the number of non-Europeans in the service of the producing mines at the end of December, 1953, was 255,518 as against 248,390 at the end of December in the previous year. Since the close of last year numbers have increased at a higher rate than usual and by the end of April the number in the service of the producing mines totalled 292,844, which is the highest figure recorded since May, 1950.

A shortage of electric power was experienced throughout the year but by collaborating with the Electricity Supply Commission the mining industry was able to minimize cuts and to make optimum use of the available power. In recent months there has been a noticeable improvement in the overall power position and the progress made to date by Escom in its programme of expansion encourages optimism that the critical period is over.

The uranium industry, which is already adding substantially to the revenue of the gold mines, is expanding rapidly and will play an increasingly important part in the earning of profits for the gold mining industry and in providing valuable foreign exchange for the Union of South Africa.

The gold mining industry welcomes the re-opening, early in the current year, of the London gold market which had been closed since the outbreak of hostilities in 1939. With the re-establishment of this market the arrangements for the sale at enhanced prices of a portion of the industry's gold output for industrial and artistic purposes were discontinued. I should, however, like to make it clear that this source of additional revenue, which fell away latterly owing to the disappearance of the premium, is not lost to the industry as gold is now sold for its account by the South African Reserve Bank on the London market, or elsewhere if conditions are more favourable. Prices on the London market are not determined by the official dollar/sterling exchange rate and have, in fact, varied from 248s. 3½d. to 249s. 1d., thus providing a small but comparatively satisfactory premium over the price based on the rate of exchange.

Before concluding my remarks on the gold mining industry, I should like to draw your attention to two facts connected with your company's investment portfolio. Amongst the new mines expected to come to production during the current year with a yield above the industry average is the Harmony mine in which your company holds a large interest. At the end of March, 1954, of 9,622 ft. of reef development, 94.7 per cent. had proved payable, averaging 624 in. dwt. The general mining conditions appear to be satisfactory and shareholders may look forward with confidence to a good return on the investment in this gold mine, which will also produce uranium. The major proportion of your company's investment is in the older mines which, as you know, last year suffered from an acute shortage of labour.

Although the coal output of South African collieries again reached a record level in 1953 and profits were increased due to this and the higher internal price agreed upon during 1952, the full profit potentialities were not realized owing to the country's overall shortage of transport.

The cement industry, as a result of some improvement in its allocation of railway trucks and in the supplies of coal, experienced a year of better conditions.

The demand for lime has increased and will continue to increase substantially, mainly as a result of the requirements of the expanding uranium industry. The Northern Lime company, in which your company holds a large interest, is making steady progress in its preparations to exploit the extensive deposit discovered at Silverstreams in the Northern Cape Province and should commence production there in the latter half of the current year.

As forecast last year, your Directors followed a broad policy of consolidation in the direction of the affairs of the company. Investigations into various ventures were continued, and the very sound financial position of your company will enable it to take full advantage of favourable opportunities for new investment at the appropriate time.

The report and accounts were adopted.

## CITY DEEP, LTD.

At the Annual General Meeting held on May 10, 1954, **Mr. N. W. S. Lewin,** who presided, in the course of his remarks said:

As you are well aware, the City Deep mine is passing through a difficult period, partly on account of the general restrictive conditions that exist throughout the gold mining industry in the shape of shortages of labour and power, partly on account of the problems which are common to the older Central Rand mines and which are associated with the extension of the mine into the ultra deep levels, and partly because of the particular problems that are peculiar to the mine itself. I do not think it is necessary for me here to emphasize the restrictive effects of the general economic conditions under which the industry is working other than to point out that the mine's own domestic problems would be much more readily resolved had these not existed.

These domestic problems are concerned mainly with the programme of incline shaft sinking and the provision of adequate ventilation required to open up and work the new areas below a depth of 8,500 ft. on which the future of the mine largely depends. Satisfactory progress is being made in this direction but the capital expenditure entailed will, as stated on previous occasions from this chair, be a heavy drain on the financial resources of the company for some few years to come.

Whilst much effort is being directed towards the expeditious establishment of these deep levels, good progress continues to be made in improving the operational efficiencies of the existing workings. In this connection I would draw your attention to a very creditable improvement attained by the management and recorded in the Annual Report before you: in spite of a decrease of about 9 per cent in the labour force, compared with the previous year, the total footage developed increased from 50,880 to 58,640 ft. and the tonnage milled increased from 1,851,000 to 1,922,000 tons. There was a small decrease

in total working expenditure, and working costs per ton milled were lower by 2s. 1d. at 45s. 2d. On the other hand, however, there was a decrease in revenue of 3s. 6d. per ton milled, due partly to the decrease in the additional revenue derived from sales of gold at enhanced prices, and partly to a decrease of about 0.2 dwt. per ton in the grade of ore sent to the mill. This decrease in the grade is attributable to several factors, but mainly arises as a result of the change over from mining in scattered areas on the resue system of stoping to concentrated mining on the open support longwall stoping system. While the latter method of stoping has certain limitations in so far as grade control is concerned, the choice is enforced by the necessity to limit pressure bursts at deep levels, and there are associated advantages in terms of improved general efficiency and ventilation.

The report and accounts were adopted.

## EAST RAND PROPRIETARY MINES, LTD.

At the Annual General Meeting held on May 10, 1954, the Chairman, **Mr. W. M. Frames,** in the course of his remarks, said:

The shortage of labour continued to restrict operations at the mine, and whilst the high standard of productivity was well maintained it was not possible to do more than continue the curtailed development programme in the Western Section enforced during the preceding year and concentrate to a greater extent on the more promising areas in the Central and Eastern Sections of the mine. A considerable proportion of the reef development consisted of exploratory driving above the 8,000 ft. horizon in the eastern portion of the mine and between the pilot winzes in the central area. In general, this development was satisfactory. Good progress was attained in connecting up the pilot winzes on the 64th Level in the Central Section. This will not only provide a through connection and an additional outlet between these incline shafts below 58 Level but, being on reef, will assist in assessing the value of the considerable potential reserve contained in the areas between the pilot winzes.

Sinking in the five concrete lined sub-incline shafts continued to make satisfactory progress and an aggregate advance of 2,686 ft. was accomplished during the year. The pilot winzes, which are being sunk on reef above these sub-incline shafts, again revealed, in general, highly satisfactory disclosures and, of the total of 2,790 ft. sampled, 1,960 ft., or 70 per cent., proved payable at 591 in. dwt. This brings the footage advanced in these winzes, since their inception to the year end, to a total of 11,683 ft., of which 10,530 ft. were sampled, 8,250 ft., or 78 per cent., being payable with an average value of 592 in. dwt. At the end of April "H" pilot winze had reached the considerable depth of 9,465 ft. below the surface. Stoping has commenced from "F," "G," and "H" pilot winzes, but progress will be slow until additional ventilation and cooling plants have been installed. The increased use of the underhand longwall method of stoping has called for mechanized stope lashing and ore transport, on which approximately £100,000 was spent during the past year. This has proved an advantage rather than just an added production cost when due consideration is given to the inevitable decline in manual efficiency in deep level mining and the necessity of conserving labour.

The headgear to serve the South East Sub-Vertical Shaft was installed during the year, sinking being commenced from the 42nd Level, At the end of April, 1954, an advance of 597 ft. had been accomplished.

It was expected that capital expenditure during 1953 would be of the order of £490,000, but the actual amount expended was £380,213. It is estimated that capital expenditure on shaft sinking, hoisting equipment and cooling and compressor plant for the current year will amount to approximately £650,000.

It is of interest to note that since the close of the year the number of non-Europeans in service on the mine has shown a market increase. In April there was an average of 12,975 non-Europeans in service as compared with 11,578 in April, 1953, and 11,324 in December last. The European labour strength continues to be inadequate for the mine's requirements.

At the Annual General Meeting of this company held last year the Chairman referred briefly to the consideration which had been given to the desirability of sinking a new ventilation shaft from the surface to serve the deep level areas in the far eastern portion of the mine, including the area of approximately 1,378 claims adjoining the company's southern boundary, over which a lease has only recently been granted to your company. This project and its implications are still under close study.

The report and accounts were adopted.

## TRANSVAAL CONSOLIDATED LAND AND EXPLORATION CO., LTD.

At the Annual General Meeting held on May 10, 1954, the Chairman, **Mr. T. Reekie,** in the course of his remarks said:

The output of the Van Dyks Drift Colliery was again restricted by inadequate and erratic supplies of railway trucks but despite this it was possible to improve slightly on despatches for 1952. Due to this improvement and the higher internal price for coal introduced in mid-1952 the colliery's profit rose by £22,645 to £122,570. Mineral royalties were higher by £11,283, principally due to increased receipts from the tributors of the Penge asbestos property, while income from investments declined by £4,672. As regards Investment Realization, in 1952 the net loss on shares realized and amounts written off investments totalled £12,593, as against a credit of £44,624 in 1953, made up of £13,997 in respect of shares sold less the cost thereof, and an adjustment of £30,627 in respect of depreciation written off in previous years. This adjustment was made in terms of the new Companies Act in order to show investments at the lower of cost or market value or, if unquoted, directors' valuation. Expenditure on exploration and ventures at £62,100 was £35,336 higher than the previous year's figure and was mainly on platinum prospecting. The profit before taxation for the year was £237,955, being £52,886 higher than in 1952. After allowing for taxation, however, which increased by £21,466 and absorbed £67,640, the year's profit, compared with £138,895 for 1952, amounted to £170,315. Taking into account the balance of £400,764 unappropriated at the beginning of the year, an appropriation of £81,396 for the dividend of 1s. 9d. a share declared in December, 1953, and a transfer of £125,000 to General Reserve, there remained an unappropriated balance of £364,683 at the end of the year.

Net current assets which comprised cash and deposits, sundry debtors and payments in advance, stores, mortgage bonds and other securities, less all liabilities and provisions other than those of a contingent nature, totalled £367,855, an increase of £60,071 over the corresponding figure for the previous year. This is a satisfactory position considering the increased expenditure during the year in respect of platinum prospecting and the substantially higher taxation liability for which provision has been made. In his budget address on March 24, 1954, the Minister of Finance proposed the abolition of the compulsory loan levy with effect from July 1, 1953. An amount of £5,290 set aside in the company's accounts for this purpose in respect of 1953 will be reversed in the current year when the Minister's proposal is implemented. Shareholders will have noted that in terms of the new Company Law requirements the aggregate market value of quoted share and debenture investments is shown in the Balance Sheet at £770,236 as at December 31, 1953.

At the end of the year the book value of the company's Van Dyks Drift Colliery stood at £845,685, having been increased by £8,435 in respect of capital expenditure incurred during the year. Capital expenditure for 1954 is likely to be somewhat higher and will be incurred largely on the erection of the main office block which is to replace the existing temporary prefabricated buildings.

Although the output of the colliery was again restricted due to the continued shortage of railway transport facilities, particularly during the latter half of the year, less hours were lost due to this factor than in 1952 and it was possibe to increase despatches by 14,771 tons to 572,620 tons for the year. Production was again confined to five of the six available mining districts. Sufficient face room and equipment is available underground and the colliery has ample capacity to produce substantially larger tonnages, but a marked improvement in transport facilities is an essential prerequisite of increased output. This is particularly so in the case of the export trade, which can only be built up satisfactorily when the railway transport position improves to an extent which will enable the industry's shippers to assure overseas buyers of regular and adequate supplies.

Further underground exploration of the farm Boschkoppie No. 685 in the Rustenburg district of the Transvaal was carried out during the year by the Platinum Prospecting Association No. 3, in which this company continues to hold a 45 per cent interest. In addition, the Association re-opened and dewatered the old mine workings on its Brakspruit property approximately 25 miles south-east of Boschkoppie and re-sampled reef exposures in the shafts and drives. A certain amount of diamond drilling was undertaken over the remainder of the property and a further series of shallow boreholes is at present being drilled. Since the end of the year the programme of exploration on Boschkoppie has been completed and the workings have been closed in a manner which will enable the property to be re-

opened with the minimum of expenditure and inconvenience should circumstances warrant. The plant, equipment and stores have been transferred to Brakspruit where a limited amount of underground development work is now being undertaken.

The report and accounts were adopted.

## DURBAN ROODEPOORT DEEP, LTD.

At the Annual General Meeting held on May 11, 1954, the Chairman, **Mr. N. W. S. Lewin,** in the course of his remarks said:

You will have seen in the Annual Report a reference to our agreement to sell to the Municipality of Roodepoort-Maraisburg the freehold of approximately 240 morgen for native location purposes. The sale price agreed upon is approximately £35,000 and we shall receive this sum as soon as the transfer of the land is registered, probably during the course of the current year.

We have recently received official notification that our application for a mining lease over the 750 claims adjoining the western portion of our southern boundary has been granted. We are now in a position to plan and carry out our operations to cover the new area and, as you will realize, we must expect to incur an appreciable amount of capital expenditure in this connection. In the report we put our estimate of capital expenditure during the current year at approximately £300,000. You will have noted that for the past year we spent £252,000, though at the last Annual General Meeting in May, 1953, we forecast £300,000. Expenditure at an average rate of more or less £300,000 will probably continue for some years in order to cover the programme of opening up the Main Reef in depth and extending operations on the Kimberley Reef. I cannot be more precise about the future capital expenditure programme as it will depend to a large extent on what we find as our work progresses, particularly towards and into the new lease area. In this connection about 1,000 ft. of development has been done on the Main Reef intersected in the 44th level haulage south from No. 6A Shaft, and values, which were indifferent to start with, improved as the drive advanced westward. A crosscut on the 48th level from this shaft to the Main Reef in the vicinity of the new lease area has now been commenced.

The work of opening up and mining the reefs proceeded steadily during the year and it is satisfactory to record that in spite of the handicap of reduced underground labour strengths, the tonnage of ore milled was only slightly below the previous year's figure, while the ore developed was almost sufficient to replace that mined from payable reserves.

So far as our mining activities are concerned, I think the only two other points that I need mention are the Meadowlands borehole and the current development figures. We decided, as you know, to stop the borehole at 6,238 ft. after passing through the Kimberley Reefs without disclosing payable values. We had obtained the information we wanted about the reef horizons and further expenditure would not in our view have been warranted. The Main Reef Group can be expected to lie at a depth of about 12,000 ft., which is too great for economic mining. In regard to development, the in. dwt. value of last quarter's results was higher than for a number of years past and the percentage of payability was maintained.

The native labour situation since the end of the year has improved very considerably and you may like to know that at the end of April our underground non-European force numbered 7,829 as compared with 6,759 at the end of December and 7,176 at the end of April, 1953. Unfortunately, like many other mines, we have not enough European underground employees for our requirements and this has naturally a hampering effect on our activities. At present we are giving close consideration to the advisability of embarking on a further programme of house building, as we think this may be necessary if we are to keep a contented and stable labour force. In 1952 and 1953 we built, as you will remember, 39 new dwelling houses.

In conclusion, I think you might like me to say a brief word on the subject of uranium. We have, of course, carefully investigated the position so far as our mine is concerned and keep it constantly under review. All I can say is that from the information so far revealed our company would not be justified in applying for admission to the ranks of uranium producers.

The report and accounts were adopted.

## CROWN MINES, LTD.

At the Annual General Meeting held on May 10, 1954, the Chairman, **Mr. W. M. Frames,** in the course of his remarks said:

As you know, the extent and profitability of the operations of the gold mining industry were adversely affected in 1953 by an acute shortage of non-European labour, an increase in working costs and declines in both the determined price of gold and the additional revenue from sales at enhanced prices. Considered against this background and in relation to the position at the mine outlined to you by the Chairman last year, the results obtained by your company for the year under review can be considered satisfactory. A small decline in the tonnage hoisted was more than offset by an increase in the tonnage of low grade ore drawn from surface dumps. Due to the low cost of the latter and to the reduced expenditure on incline shaft sinking and development, working costs decreased by 8d. a ton milled. On the other hand, the lower yield and the fall in the amount received per ounce of gold caused the revenue to decline by 1s. a ton and as a result the working profit at £604,933 was lower by £43,740.

In general, operations at the mine proceeded according to expectations. The tonnage added to the reserves on the Main Reef Leader in the bottom levels was only about two-thirds of the corresponding amount in the previous year. In the eastern section, development, which has virtually been completed, added only a very small tonnage to the reserve. In the central section some useful tonnage was developed but it is unlikely that any significant blocks remain to be opened up in this section. It will, therefore, become necessary to draw some ore from shaft pillars in the near future in order to maintain production from these sections. About 75 per cent of the ore developed during 1953 in the bottom levels was located in the western section where normal development operations in depth are continuing and although values and percentage of payability are satisfactory there are indications that development is entering a poorer zone. Under existing conditions it appears likely that operations at the mine may continue on the present scale for about another three years after which there will be a gradual decline over the remaining period of the mine's life. Surface dumps, which provided a welcome supplementary tonnage and profit in 1953, are sufficient to last for several years at the present rate of consumption.

Since the close of the year there has been a marked increase in the supply of non-European labour, which now promises to show a substantial improvement over the previous year. On the other hand, the shortage in underground European labour has become more acute and we are concerned about the effects it may have on future operations.

In reply to a question by a shareholder, the Chairman stated that certain claims on Bird and Kimberley reefs, which were inaccessible to this Company, were being tributed on a royalty basis by Consolidated Main Reef Mines and Estate Limited.

The Report and Accounts were adopted.

## ROSE DEEP, LTD.

At the Annual General Meeting held on May 11, 1954, the Chairman, **Mr. T. Reekie,** in the course of his remarks, said:

Shareholders were informed in my address at the last Annual Meeting of the various steps that had been taken in recent years to increase efficiencies by re-organizing and modifying the layout of the surface and underground workings at the property and they were also advised that any further deterioration in the labour supply would probably necessitate a reorganization of the mine to operate on a reduced scale. There was in fact a further decrease in the number of non-European employees during the year under review which restricted the company's operations. As a consequence it was decided to close down the Nos. 1 and 2 shafts and the haulage connecting them to the mill. Apart from the consideration of labour shortage, operations in the areas served by these shafts, where the tonnage of ore remaining was very small and consisted of scattered blocks and portions of shaft pillars which would have been costly and difficult to extract, were barely economic. The cessation of mining operations in this northern area, which had been absorbing a disproportionate amount of the available labour in relation to the relatively small tonnage produced, has enabled the labour force to be concentrated, and more effectively utilized, in the remaining portions of the mine. Although in the current year there has been some alleviation of the acute shortage of non-European labour which has been experienced in recent years, it is not possible at the present time to make a definite prediction as to the probable future trend of the native labour supply.

Shareholders will realize that the comparatively high development footages accomplished in the past few years have completed the opening up of the middle as well as the upper portions of the mine and there remains only limited scope for further development in the southern areas of the property. It must, therefore, be expected that development footages and the tonnage of ore developed will continue to decline. It will be appreciated, therefore, that although re-organization of the mine to operate on a reduced scale may be brought about by the labour supply position, this step would in any case be necessitated in the not too distant future by the eventual decrease in the number of available stoping faces.

During the year an initial repayment of capital amounting to 1s. per share was made to shareholders. Your Directors are of the opinion that such repayments are the more appropriate form of distribution at this stage in the company's existence and, as shareholders are probably aware, it is not convenient, owing to the formalities necessary in connection with the reduction of the company's capital, to make repayments more frequently than once a year. At the conclusion of this meeting you will therefore be asked to consider as an item of special business proposals for making a second return of capital by repaying a further 2s. per share to shareholders registered in the books of the company at June 30 next. This will absorb £70,000 and reduce the par value of the company's shares to 17s. each. Should this proposal be adopted the payment will be made, following the customary practice, as soon as possible after the Court confirms the reduction of capital. In deciding on the amount of the proposed repayment the Board, having regard not only to the financial position of the company but to the mine's present operating difficulties and its earning capacity at this late stage in its life, considered it prudent to retain adequate cash resources to provide against possible contingencies.

A special resolution, reducing the company's capital from £665,000 to £595,000 by repaying 2s. per share to shareholders, was passed unanimously.

The report and accounts were adopted.

PLANT ENGINEER. A vacancy exists for a highly qualified mechanical engineer with construction experience to supervise installation of heavy equipment and civil works in tropical Africa. Top salary will be paid to attract an engineer with experience and initiative and applications will be treated in confidence. Please give full details of experience with application and an indication of salary expected to Box No. 551, The Mining Journal, 15 Wilson Street, Moorgate, London, E.C.2.

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Directorate of Colonial Geological Surveys requires: One Principal Scientific Officer (male) (Geophysicist) Ref. A133/54A. Qualifications: Good Honours degree in Physics (preferred) or Geology; several years' practical experience of seismic and gravitational prospecting and general knowledge of other methods of geophysical prospecting. One Senior Scientific Officer (male) (Geophysicist) Ref. G161/54A. Qualifications: Good Honours degree in Geology, with post graduate study in geophysics and with some field experience of geophysical prospecting. Duties initially at London Headquarters, later considerable period in Colonial territories. Starting salaries according to qualifications and experience, within scales (London rates) P.S.O. £1,150 x £40—£1,190 x £50—£1,540 x £30—£1,570. S.S.O. £975 x £35—£1,150. F.S.S.U. superannuation. Other conditions as for U.K. Scientific Civil Service. Application forms from MLNS Technical and Scientific Register (K), 26 King Street, London, S.W.1, quoting appropriate reference.

# BRITISH INSULATED CALLENDER'S CABLES

## SIR ALEXANDER ROGER ON THE SATISFACTORY RESULTS

The 9th annual general meeting of British Insulated Callender's Cables, Ltd., will be held on June 10 in Liverpool.

The following is an extract from the circulated statement of the Chairman, **Sir Alexander Roger, K.C.I.E.:**

In my Statement last year I expressed the opinion that trading conditions in 1952 had been exceptionally favourable and the drop in 1953 Trading Profit of £1,178,002 to £8,344,074 was not unexpected by us.

Under all the circumstances we consider the results, which are more in line with the normal year 1951, to be satisfactory.

The main features of the Profit and Loss Account are that the fall in Trading Profit has been more than offset by the decreased charge for Taxation and the increased Special Receipts leaving a Net Available Profit from the year £533,901 higher at £3,998,336.

Your Directors have had fully in mind the claims of Stockholders for an increased distribution. Thus, while continuing to strengthen reserves by transferring £500,000 to Reserve for Replacement of Fixed Assets, and £1,000,000 to General Reserve, and by adding £322,346 to the Balance Carried Forward on Profit and Loss Account, they propose to pay a total dividend for the year of 10 per cent, less Income Tax (of which 2½ per cent, less Income Tax, has already been paid as an interim dividend last January) and to make a Special Distribution of 2½ per cent, free of Income Tax, out of Capital Profits earned on the realization of investments and properties in 1953 and earlier years.

As the Balance Sheet shows, the position of the Group is a very strong one, Reserves now exceeding the Issued Capital and total Assets amounting to over £62,000,000.

### PRODUCTION

In certain of our activities the Group has enjoyed a good load factor with all its benefits, but in others the load has been erratic with all its consequent problems. This latter position has applied particularly where copper is mainly involved.

We have, however, made excellent progress on several large schemes of improvement which have left us with manufacturing units of which we can be justly proud.

Technically, I believe that in our history we are as efficient as anyone in the world and we are spending large sums each year to remain so. From the cost angle much can be done by the introduction of new plant and processes, but the full benefits can only finally be obtained by overall efficiency and hard work. Your Board are all in favour of higher salaries and higher wages, provided, and it is a most important proviso, they are accompanied by higher efficiency and increased output.

Although there has been a welcome increase in the intake of orders since last Autumn, there is no doubt that the days of having long order books are over, and that we are back to the pre-war position in many of our products with delivery and price becoming of increasing importance.

The relinquishment, however, of Government control over most of our raw materials, and the growing freedom we therefore enjoy, are a help and challenge to us all in the Group to achieve greater productivity, even higher efficiency and lower costs. They must remain our foremost objectives.

Conditions from the short-term aspect may not be easy—they rarely are! But I have confidence in the future of this Group with its wide spread of interests both in products and in territories; with its active research and technical activities; with its fine factories constantly being improved; and above all with its enthusiastic, competent and loyal team of men and women.

### THE CHAIRMANSHIP

In concluding this review of the 1953 results, I also virtually conclude my active service as a Director and as your Chairman, for it is my intention immediately after the forthcoming General Meeting to resign both these Offices.

I get particular pleasure and comfort from the proposed appointment of Mr. W. H. McFadzean as my successor in the Chair. He and I have worked together closely and happily for over twenty years, and since the amalgamation he has been my right-hand man. I commend him to you with complete confidence.

Also issued with the Accounts was a tribute from the Board of Directors to Sir Alexander Roger on the occasion of his retirement as Chairman and Director of the Company.

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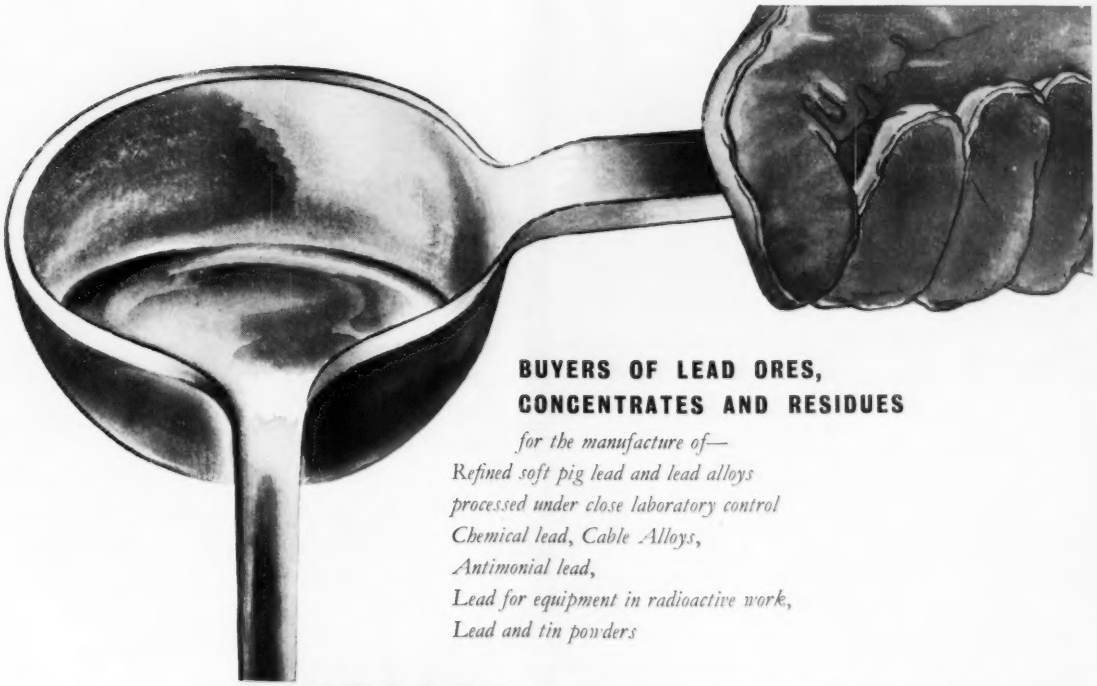

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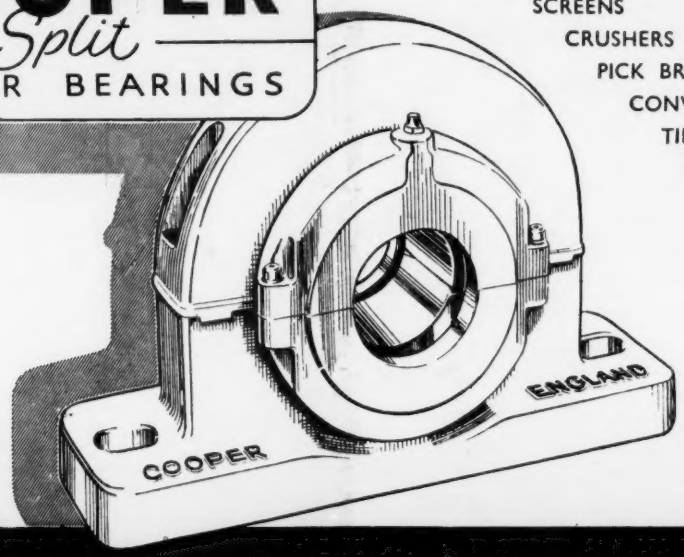


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